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COMMITTEE MEETING
STATE OF CALIFORNIA
INTEGRATED WASTE MANAGEMENT BOARD
SPECIAL WASTE COMMITTEE

JOE SERNA, JR., CALEPA BUILDING
1001 I STREET
2ND FLOOR
COASTAL VALLEY HEARING ROOM
SACRAMENTO, CALIFORNIA

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PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

COMMITTEE MEMBERS

Ms. Cheryl Peace, Chair

Mr. Carl Washington

BOARD MEMBER ALSO PRESENT

Ms. Rosario Marin

Ms. Rosalie Mul

STAFF

Mr. Mark Leary, Executive Director

Ms. Julie Nauman, Chief Deputy Director

Ms. Marie Carter, Chief Counsel

Mr. Nate Gauff, Staff

Mr. Jim Lee, Deputy Director

Ms. Selma Lindrud, Committee Secretary

Mr. Jon Myers, Assistant Director, Public Affairs Office

Mr. Chris Peck, Supervisor, Media/Outreach Services

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APPEARANCES CONTINUED

ALSO PRESENT

Mr. Don Amos, Continental Tire North America

Ms. Sanat Bhavsar, Yokohama Tire

Mr. Dennis Candido, Bridgstone Americas

Mr. Dave Chapman, The Goodyear Tire & Rubber Company

Mr. Red Hermann, Michelin North America

Mr. Terry Leveille, TL & Associates

Ms. Tracey Norberg, Rubber Manufacturers Association

Mr. Scott Smithline, Californians Against Waste

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1 PROCEEDINGS

2 CHAIRPERSON PEACE: Good morning, and welcome to
3 the Special Waste Committee. I think we're all here, so
4 Selma, would you like to call the roll?

5 SECRETARY LINDRUD: Washington?

6 COMMITTEE MEMBER WASHINGTON: Here.

7 SECRETARY LINDRUD: Peace?

8 CHAIRPERSON PEACE: Here.

9 And also please let the record show that also in
10 attendance is Chair Marin and Board Member Mulé. Thank
11 you both for being here.

12 BOARD MEMBER MARIN: We're paying the favor back.

13 CHAIRPERSON PEACE: Really appreciate your time
14 and your input. Thank you so much.

15 At this time, I want to remind everybody to put
16 their cell phones and pagers on the meeting mode. There
17 are some agendas on the back table. There are also
18 speaker slips. If you'd like to address the Committee on
19 an item, please bring the speaker slip to Ms. Lindrud
20 seated at the table to my left.

21 And, Members, are there any ex partes?

22 BOARD MEMBER MULÉ: No. Up to date.

23 CHAIRPERSON PEACE: I'm up to date.

24 COMMITTEE MEMBER WASHINGTON: Up to date.

25 CHAIRPERSON PEACE: I guess we're all up to date.

1 Our Legal staff has asked me to read the
2 following statement. As many of you know, the Board
3 currently has two vacancies, which has resulted in this
4 Committee only having two members instead of three. Even
5 though there are four of us up here, there are only two
6 members of the Committee. Statute provides that Board
7 Committees must have at least three members. As a result,
8 while we will proceed with our meeting today and hear all
9 the items before us, we will refrain from voting on the
10 items and/or recommending any of them for the Board's
11 consent agenda.

12 Based upon the discussion today and our other
13 Committee meetings, our Executive Director will compile a
14 proposed consent agenda for the Board meeting for those
15 items that do not appear to require further discussion
16 before the full Board. Of course, you should know that
17 any Board member retains the right to remove any item from
18 the proposed consent agenda.

19 If there is no objection, I would like to kind of
20 hear some of these items out of order today. I would like
21 to hear Items 1, 2, 4, get our business items out of the
22 way, and then go to Item 3, our presentation by the RMA.
23 I think those three items should go fairly quickly.

24 And with that, Mr. Lee, you have a Deputy
25 Director's Report?

1 COMMITTEE MEMBER WASHINGTON: Just before
2 Mr. Lee -- so we're not going to take any action? We're
3 just here hearing the items?

4 CHIEF COUNSEL CARTER: Marie Carter, Legal
5 Division.

6 Yes. That's correct. And, Mr. Washington, you
7 can ask questions, take testimony. The only thing we
8 would ask that you not do is to take a vote on any matter.
9 Thank you.

10 DEPUTY DIRECTOR LEE: Good morning, Madam Chair,
11 and Committee members, and Board members. My name is Jim
12 Lee with the Special Waste Division.

13 Madam Chair, there are no items in my Deputy
14 Deputy's report for this morning. So with your
15 permission, we're prepared to move into the main agenda.

16 Item B is Consideration of Augmentation and
17 Extension of the Contract for the Northern California
18 Rubberized Asphalt Concrete Technology Center, Tire
19 Recycling Management Fund, Fiscal Year 2004-05. Nate
20 Gauff will make the staff presentation.

21 MR. GAUFF: Good morning, Madam Chair, Committee
22 members. I'm Nate Gauff with the Special Waste Division.

23 Committee Item B, Board Item 1, is the
24 Consideration of Augmentation and Extension of Contract
25 for the Northern California Tech Center. What this item

1 is before you for is to bridge the gap on the current Tech
2 Center contract.

3 In January of 2001, we entered into a contract
4 with the Northern and Southern Tech Centers. This item is
5 to extend that contract out until 2007 and augment it by
6 \$100,000. Once again, their contract expires in May of
7 this year. And so we want to carry them through the
8 fiscal year and into whatever budgetary cycle occurs next
9 fiscal year.

10 In addition, we want to use this money to
11 continue some of the efforts that they've been doing up to
12 this point. Namely, they're putting together a database
13 on all the local government rubberized asphalt projects.
14 That effort has proved to be more extensive than they
15 originally thought. So they're telling me they're not
16 going to be able to finish it by the end of this current
17 contract, number one, in time. And number two, that it is
18 taking significantly more resources than they anticipated.
19 And they were looking for additional funding to carry on
20 that effort.

21 As staff, I feel -- and I think the members of
22 the Board have all expressed, you know, a certain
23 importance on that database and having that information.
24 So we're bringing this item before you to continue on that
25 contract.

1 In addition, there will be an allocation proposed
2 in the Five-Year Plan for the Northern Center that will
3 continue on more the historic duties they've performed for
4 us, namely, doing some of the technical assistance
5 outreach and also doing some special projects for us. So
6 this is separate from the 05-06 allocation.

7 Are there any questions?

8 CHAIRPERSON PEACE: I guess the only question I
9 have is, it says their contract will expire May 15th and
10 the spending authority will expire June 30th and the new
11 contract will run through May again of '07.

12 MR. GAUFF: Yes.

13 CHAIRPERSON PEACE: I guess that kind of is
14 confusing to me, when their contract expires in May but
15 spending authority expires in June. Is there a reason why
16 we wouldn't want their contract to be extended through
17 June 30 to coincide with the spending authority?

18 MR. GAUFF: Yes, there is a reason. There's a
19 processing time to get the final invoices of the contract
20 through the state system so that we can pay them with the
21 current fiscal year dollars -- or with the available
22 fiscal year dollars before the spending authority expires.
23 So, typically, what we do is set the contract term dates
24 to end in mid to late May in the sense they're not
25 supposed to carry on any additional work after that date.

1 That allows staff and -- not only program staff but
2 accounting staff to process the final payments and those
3 types of things, once again, so that we can pay them out
4 of the money before the spending authority expires.

5 CHAIRPERSON PEACE: Okay. That makes sense then.

6 Any other questions?

7 BOARD MEMBER MARIN: Madam Chair, one of the
8 questions I have regarding this, is this part of the
9 Five-Year Plan -- of which Five-Year Plan?

10 MR. GAUFF: I can explain that. Currently, there
11 is an allocation in the current Five-Year Plan. There is
12 also an allocation proposed for the next Five-Year Plan
13 iteration which would be cover 05-06 and 06-07. This
14 particular augmentation is not a part of either of those.

15 BOARD MEMBER MARIN: So this is an extra?

16 MR. GAUFF: Correct.

17 BOARD MEMBER MARIN: This is more money for the
18 RAC Centers?

19 MR. GAUFF: Correct. Now, historically, the
20 Northern Center, which is based in Sacramento County, has
21 not spent the full allocation.

22 BOARD MEMBER MARIN: Why are we giving them more
23 if they haven't even spent what they've been allocated?

24 MR. GAUFF: That was their historic performance.
25 And, actually, out of the fiscal year 02-03 money -- or

1 I'm sorry -- 01-02. Because we fund these for 01-02 and
2 02-03.

3 Out of the fiscal year 01-02 allocation, they did
4 not spend the full 225,000 they were allocated. With the
5 \$225,000 allocated that came from 02-03 funds, they're
6 telling me they're going to spend all of those funds.

7 BOARD MEMBER MARIN: Okay. They don't have a
8 track record that says they're going to do that.

9 MR. GAUFF: Not a historic track record. Now,
10 we've only actually worked with these folks since '99,
11 versus the L.A. Center we've worked with them since '97 --
12 actually, '96.

13 BOARD MEMBER MARIN: Are we having the same thing
14 for the Southern Center?

15 MR. GAUFF: No. L.A. has found a way to spend
16 all the money we've given them.

17 BOARD MEMBER MARIN: And they want more; right?

18 MR. GAUFF: Yes.

19 BOARD MEMBER MARIN: So they have a good track
20 record of spending the money.

21 MR. GAUFF: Well, I guess -- well, I don't want
22 to answer that. I better not answer that.

23 DEPUTY DIRECTOR LEE: Madam Chair, we came before
24 the Board in December and discussed the allocations for
25 the Southern California RAC Center. At the time, we

1 weren't envisioning the role that we are currently
2 outlining for you today for the Northern California
3 Center.

4 Administratively, it's desirable for us to again
5 provide the additional funds and then extend and augment
6 the contract past the end of this fiscal year, rather than
7 having it expire. As we will discuss in one of our later
8 items where we discuss kind of the outreach activities
9 we're proposing for our RAC and civil engineering efforts,
10 we perceive expanded roles for both the Northern and the
11 Southern California Centers to advance our initiatives in
12 these areas.

13 BOARD MEMBER MARIN: Let me tell you why I'm
14 having a difficulty with this. In the Five-Year Tire
15 Plan, if I recall correctly, we are actually allocating
16 some money to do separate, but precisely the same thing,
17 that I see that we're asking the RAC Centers to do.

18 So if this is a separate and on top of it and so
19 forth, I'd much rather see them go through the fiscal year
20 and then make that part of the Five-Year Plan and make
21 that allocation on the next Five-Year Plan, not part of
22 this. We're going to have a couple of contracts. It's
23 going to be difficult. What activity is going to be part
24 of this? And also from the other item on the Five-Year
25 Plan there's going to be a marketing effort that is not

1 going to necessarily be part of the Centers. To me, seems
2 like it's a little bit -- it will be too convoluted.

3 And then there's not going to be a very clear
4 direction as to who's in charge of what. Now we're going
5 to have three different entities talking to local
6 jurisdictions about what they're supposed to be doing with
7 RAC.

8 You know, I'd much rather see a comprehensive
9 plan in the Five-Year Tire Plan that will have -- if they
10 need more allocation, I don't have a problem allocating
11 the money. I'd much rather see just one contract for a
12 bigger thing than two different contracts with two
13 different dates and then the Five-Year Plan with a very
14 different date. I have some questions on that.

15 MR. GAUFF: Can I respond to that?

16 BOARD MEMBER MARIN: Sure. Try.

17 MR. GAUFF: Thank you. As far as the Northern
18 California Center is concerned, they operate differently
19 than the Southern Center. Historically, the Southern
20 Center was the first and actually was a statewide Center
21 until the Northern Center came into being or until we
22 entered into contract with them.

23 The one thing I would say, as a contract manager
24 of both Centers, is that I feel the Northern Center has
25 been very responsive to staff and to the program when

1 we've asked them to do things that were on a short notice
2 or of a nature that was out of the ordinary. I mean,
3 they've been excellent at responding to special projects
4 or special issues that have come up where they can turn
5 around and get the work done a lot faster than we could,
6 you know, one, through our contracting process, or two,
7 through finding the expertise to address the issue.
8 They've been very good at turning around and addressing
9 issues on our behalf on a very short notice.

10 In addition, the Southern California Center has
11 shown some reluctance to do those types of projects. The
12 Southern California Center has been more interested in
13 doing the outreach and interface with local governments
14 and technology transfer, and they've been somewhat
15 successful at that.

16 So I think the difference and the necessity for
17 both Centers is still valid, because they operate in
18 different areas. They provide different service to the
19 Board. And both of them have been successful in providing
20 that service to some level.

21 As far as the more comprehensive item that's
22 going to come up with the marketing and the RAC expert and
23 those things, I think what we envision is that ultimately
24 the marketing effort will be led by the marketing
25 contract. The technology transfer effort will be led by

1 our technical expert. But I think they will utilize the
2 staff of the Technology Centers to go in and interface and
3 assist them in their efforts. That still remains to be
4 coordinated. Obviously, we're going to coordinate that --
5 at least I will or Program staff will in regards to the
6 RAC technical expert. And I think the Public Affairs
7 folks are going to work more with the marketing firm and
8 interface with us also.

9 But the way I envisioned it, and I think you'll
10 hear later, is it will be a coordinated effort. It's not
11 like we're going to have these people coming willy-nilly
12 and hitting these, at least once the program is in place.
13 That might happen in the time of development, but I think
14 once the program is in place, there will be a coordinated
15 effort through our larger contracts for marketing and
16 technology transfer and that they will use the Tech
17 Centers as an assistant in that process.

18 Once again, this item is more to help the Tech
19 Centers -- the Northern Tech Center carry on their
20 existing initiatives mainly around the RAC database. What
21 we don't want to do is drop the ball. They've got the
22 work started. They've got a contractor on board that's
23 putting together the information. But, obviously, you
24 know, it's a significant effort to get the information
25 from all the jurisdictions that are using rubberized

1 asphalt. And they're not just looking at current
2 projects. They're looking at historic projects. And some
3 of these jurisdictions have had 10, 15, 20 years of
4 experience using the material. There's a lot of data to
5 collect and, you know, input --

6 BOARD MEMBER MARIN: Was that something that we
7 contracted them to do? Or was this something that all of
8 a sudden that was an extra thing that we asked them to do?
9 Staff just asked them to do, you know, at the flight of
10 their pants and they're responding to that?

11 MR. GAUFF: No. There is a website requirement
12 in their scope of work.

13 BOARD MEMBER MARIN: So it's part of the
14 contract. Okay.

15 MR. GAUFF: Right. But the thing we did and I,
16 as staff, and the Tech Centers in conjunction with
17 developing the scopes of work, we vastly underestimated
18 the amount of effort it was going to take to put that
19 database together. In addition to the website, their
20 websites also do provide technical information. They have
21 a technical library. They provide contact information and
22 a variety of things. The database was one part of the
23 website information. So, initially, we didn't really have
24 a good feel on it, on what effort it would take to carry
25 out the database. And as we, you know, went down the

1 road --

2 BOARD MEMBER MARIN: But we have built databases
3 before. We've asked other people to build databases.
4 There is not a new enterprise.

5 MR. GAUFF: Physically constructing the database
6 is not that difficult. I agree with you. I've done it
7 myself personally. But collecting information is --

8 BOARD MEMBER MARIN: So we're going to give them
9 \$100,000 to build the database, to finish the database?

10 MR. GAUFF: No. That's not all. That's a
11 significant part of the funding. Once again, it's also to
12 look at special projects and those types of things that --

13 BOARD MEMBER MARIN: That was not part of the
14 original contract?

15 MR. GAUFF: Those projects are not defined.
16 There is a budget item to carry out special projects. For
17 example, in the fall of 2001, an issue came up around air
18 emissions at plants that produce rubberized asphalt. You
19 know, what were the significant impacts? Sacramento
20 County was able to go out and put together a protocol and
21 enter into a contract with a lab testing firm to go test
22 the emissions in the Bay Area where it was a concern where
23 there may be significant use of rubberized asphalt. But
24 they were actually able to go out and contract with a lab
25 to go out and test emissions at two separate plants

1 producing rubberized asphalt.

2 Now there's no question in the Bay Area.

3 Anywhere you go in the Bay Area, the Air Quality

4 Management District now accepts the fact they've done

5 these tests, and they will allow permits for plants that

6 want to produce rubberized asphalt.

7 BOARD MEMBER MARIN: So why couldn't they do this

8 under a new contract for a different time frame during the

9 Five-Year Plan?

10 MR. GAUFF: I think the reason why is that in the

11 proposed five-year allocation, the upcoming allocation for

12 05-06/06-07, for Northern California we put \$125,000 in

13 the allocation. Broken down, basically 50,000 for their

14 technical assistance and personnel efforts and 75,000

15 towards special projects.

16 BOARD MEMBER MARIN: Okay. Mr. Leary, it would

17 seem to me that maybe what we need to do is revisit this,

18 because it makes sense to me that if we're going to have a

19 Five-Year Plan, that that takes into consideration some of

20 these needs that obviously just came to the surface. If

21 this was something that was needed a year ago, it should

22 have been dealt with at that time. If it just came out,

23 then why shouldn't it be dealt with in the next Five-Year

24 Plan?

25 It seems to me that we need to revisit this. I

1 cannot see myself supporting something that is -- and
2 we're not voting, and this is not a vote. But it seems to
3 me that it needs to be presented in a different format
4 where this will take into consideration what the other
5 contracts are for this marketing and how the RAC Centers
6 are going to play and that the contract is very clearly
7 specified for a longer period of time.

8 DEPUTY DIRECTOR LEARY: So if it suits Committee
9 Chair Peace, we can put this over to the full Board.

10 CHAIRPERSON PEACE: Let's maybe try to explain
11 this. I don't think it's quite been explained completely.

12 In the last Five-Year Plan, the Northern and
13 Southern California Centers were given like \$250,000. In
14 the new plan, we are only giving them 125,000. So we
15 really are changing what they're doing, because we now
16 have this new contract with the marketing firm that's
17 going to take on some of this work.

18 There definitely is a coordinated effort that
19 will need to be done between the Centers, the marketing
20 firm, our Office of Public Affairs, as well other people
21 like the RPA. We're all going to work together to try to
22 get RAC and the word of RAC and how good it is out there
23 to all the jurisdictions.

24 Like I said, they don't want to let the contract
25 lapse with the Northern California Center. If they don't

1 use all this money, then it just -- you know, we can
2 reallocate it.

3 BOARD MEMBER MARIN: It can be used for something
4 else, can't it?

5 DEPUTY DIRECTOR LEE: Yes, it can. It will
6 either be part of the reallocation this year -- but I
7 think your points are well taken, Madam Chair.

8 CHAIRPERSON PEACE: The Northern California
9 Center has been very good -- they're the real technical
10 people. They're always really good at responding to any
11 technical questions a jurisdiction might have, going out
12 and doing these special projects when we need them done.
13 I don't think this is necessarily saying that they're
14 going to use all that \$100,000. But we need to have it --

15 MR. GAUFF: I don't think they'll lose any of it.
16 I think it will be very well spent. The one thing I would
17 say, and this --

18 BOARD MEMBER MARIN: If they're not going to use
19 the money, why are we allocating that money?

20 MR. GAUFF: This is part of your original
21 question. We did allocate the same amount to both Centers
22 in 01-02 and 02-03. And after having some perspective on
23 the back side, we did reduce the allocation to the
24 Northern Center, because historically they had not spent
25 all the money. So we did reduce that allocation in the

1 future years, recognizing that they couldn't put the
2 significant staff effort toward the scope of work that we
3 had in their contract.

4 The Los Angeles County, the Southern Center, has
5 found a way to use staff or to apply staff -- or I don't
6 know how you want to say it. But they've found a way to
7 spend more money, because they've had more staff people
8 involved. Their service has once again been different to
9 the Board than the Northern Center.

10 DEPUTY DIRECTOR LEE: Madam Chair, in light of
11 the Board Chair's concerns on this, I think what I'd like
12 to do is take this back under consideration, try to refine
13 our presentation for the full Board, the discussion next
14 week. I think there are many merits of this proposal
15 which I think we haven't perhaps done as good a job as we
16 can in articulating. So we'd like to refine our
17 presentation and come back before the full Board next
18 week.

19 COMMITTEE MEMBER WASHINGTON: I certainly hope,
20 Mr. Lee, that you guys can answer Chair Marin's concerns.
21 As you know with a full vote Board, all four votes are
22 going to be needed to move the item. So make sure that
23 you guys respond to her particular concerns as it relates
24 to this item so the item can get out. If not, I would
25 just pull the item and try to work it out and figure out a

1 way to get it done.

2 DEPUTY DIRECTOR LEE: I understand.

3 CHAIRPERSON PEACE: Are there any other questions
4 on this?

5 Go to Item 2.

6 DEPUTY DIRECTOR LEE: Item C is Consideration of
7 the Grant Awards for the Senate Bill 1346 Rubberized
8 Asphalt Concrete Grant Program for Fiscal Year 2004-2005.
9 Nate Gauff will make the staff presentation.

10 MR. GAUFF: All right. This item is the second
11 go-round. This grant award is the second go-round of the
12 Kuehl Bill Grant, SB 1346. The Board allocated \$1.2
13 million for fiscal year 04-05 for this item, or for this
14 program. Staff sent out a NOFA, a Notice of Funds
15 Available, in October via e-mail and U.S. postal mail to
16 over 1300 jurisdictions. The application period ended
17 January 15th -- or January 14th, 2005. And then it was
18 subsequently extended to January 28th, 2005, because of
19 some of the weather issues in Southern California. We had
20 heard from some jurisdictions they were going to have
21 problems completing applications. So we gave them
22 additional time.

23 Staff received 99 applications. Sixty-nine were
24 actually deemed eligible and complete. And the total
25 requested funding of the eligible and complete

1 applications is \$1,255,653. In the item it says

2 \$1,255,652.50, so we're rounding up a dollar.

3 Staff is recommending that the Board approve the
4 proposed awards and adopt Resolution Number 2005-81. Are
5 there any questions?

6 BOARD MEMBER MARIN: I went with a very
7 fine-tooth comb and looked at all of the cities. And I
8 happen to know most of the mayors of all of the cities
9 anyways. But I want to know why we have some cities that
10 received four different grants and two cities that didn't
11 receive anything.

12 MR. GAUFF: I'm not sure.

13 BOARD MEMBER MARIN: For example, City of San
14 Clemente, there's five little grants, small grants. And
15 City of Lynwood and City of Campbell on List B, they
16 didn't receive anything. All what I saw on List B, all
17 the other different Cities have received something. But
18 those two little Cities didn't receive anything. And here
19 you have City of San Clemente with five different grants.
20 You have City of Santa Monica with two. Oh, actually
21 more. City of San Clemente got like nine. How can we
22 justify that?

23 MR. GAUFF: Okay. This list ranking is based on
24 the criteria adopted by the Board back in fiscal year
25 03-04 when we --

1 BOARD MEMBER MARIN: I wasn't here. Sorry.

2 MR. GAUFF: Okay. That's fine.

3 Basically, the ranking says that the projects
4 will be ranked, number one, by tonnage. The highest
5 tonnage projects will be the highest ranked.

6 When you have a tie among the tonnage -- say you
7 have two projects that are 10,000 tons, then the second
8 ranking criteria or the tie-breaker for those two projects
9 would be the amount of rubber proposed to use per project.
10 Different formulations of rubberized asphalt use different
11 amounts of rubber. So the highest rubber consumption
12 projects got the secondary consideration after the primary
13 consideration being tonnage.

14 The third criteria, or the third ranking, was
15 when the project was going to be constructed. Okay. So
16 the projects that were -- once again, if they tied in
17 tonnage and they tied, they were going to use the same
18 amount of rubber per ton, then it went to which one was
19 going to be constructed first or the nearest to the
20 application deadline.

21 So that's how these projects are ranked. So we
22 took all the applications that came in, and we looked at
23 all those three criteria and we ranked the projects.
24 Okay. And so what happens is that --

25 BOARD MEMBER MARIN: But you're telling me that

1 if one or two cities came in with all of these different
2 projects, that literally three or four cities, because
3 they have the highest tonnage and the earlier completion
4 dates or the earlier starting date, that literally 1.2
5 million could go to three or four cities. That's it.

6 MR. GAUFF: Actually, part of the criteria
7 also -- it's not a ranking criteria, but it was a
8 stipulation within the grant --

9 BOARD MEMBER MARIN: The maximum of \$50,000.

10 MR. GAUFF: Fifty-thousand maximum per project,
11 and that's in the bill. But the Board also did impose a
12 \$150,000 maximum limit per jurisdiction. So, for example,
13 San Clemente actually had 13 complete applications. One
14 is split funded. That's why they show up with 14 total on
15 the list. But they had 13 complete and eligible
16 applications, but they were still under \$150,000 per
17 jurisdiction limit.

18 BOARD MEMBER MARIN: I appreciate the criteria
19 that was approved long before I was here. I appreciate
20 that. But it seems to me that in order to be fair, we
21 need to spread the happiness. We need to spend the money
22 a little bit more fair, I would think. Here you have, you
23 know, City of Santa Monica -- and I'm sure this is really
24 good for Ms. Kuehl -- you know, gets \$100,000. And poor
25 little City of Lynwood can't even get \$2,622. I mean --

1 COMMITTEE MEMBER WASHINGTON: I agree with you.

2 MR. GAUFF: I can't answer that. What we did is
3 just applied the criteria down the list until we ran out
4 of the existing allocation. And once again, the
5 jurisdictions and the projects listed on List B, if the
6 Board chose to reallocate funds or if the Board chose to,
7 they could stipulate those jurisdictions get the first
8 funding out of the 05-06 allocation, which is also
9 depending on the Budget Act.

10 But there is an allocation for Kuehl, and there's
11 a requirement in the bill that we continue the plan
12 through June of '06. So, you know, the Board could
13 stipulate, if they didn't want to reallocate with 04-05
14 funds, that those jurisdictions on List B which had
15 complete and eligible applications on this cycle, that
16 they would get the funding up to \$55,563 that would
17 actually come out of 05-06 funds.

18 BOARD MEMBER MARIN: Madam Chair, if I may. I
19 really believe that this -- actually, I made a mistake. I
20 was reading the tonnage versus the dollar amount for the
21 City of Lynwood and City of Campbell. But there's \$6500.

22 And it would seem to me that we should -- I don't
23 want to take away from the other cities, I mean, the rank
24 and all of that is good. But it would seem to me that --

25 CHAIRPERSON PEACE: You have to remember a lot of

1 the stipulations that were put in the Kuehl Bill. And
2 this is money that was put in as a result of 1346, the
3 Kuehl Bill. It only runs through 05-06. With our new
4 Five-Year Tire Plan, we do have more money in there for
5 RAC grants for first-time users.

6 BOARD MEMBER MARIN: But the cities aren't going
7 to be able to do the projects.

8 CHAIRPERSON PEACE: The Kuehl Bill runs out in
9 05-06. In the new Five-Year Plan that starts in --

10 DEPUTY DIRECTOR LEE: July 1.

11 CHAIRPERSON PEACE: July 1st, in our new plan, we
12 do have money that's not part of the Kuehl Bill that will
13 be put to RAC, so that some of these then will be able to
14 be -- they can apply for those grants.

15 BOARD MEMBER MARIN: No, because the criteria,
16 these people will have to reapply.

17 CHAIRPERSON PEACE: For a different grant.

18 MR. GAUFF: Well, let me clarify. If the Board
19 chooses, and the way the Resolution is worded is that, if
20 funds become available for 05-06 for the Kuehl program,
21 these projects can be funded. Once again, all of these
22 projects are paid on reimbursement. They have to complete
23 the project first, anyway.

24 So, for example, if the City of Lynwood -- I
25 don't have their application, so I'm not going to say this

1 is accurate. Let's say they were going to construct their
2 project in April of this year. In 05-06, if the Board
3 agreed or approved it, we could enter into a grant
4 agreement with 05-06 funds with the City of Lynwood based
5 on a complete and eligible application under this cycle.
6 And if they complete a project in April and send all the
7 documentation, when the funds became available in 05-06
8 and the grant agreement was signed by both parties, we
9 could then pay them for this project that's listed on this
10 list here.

11 DEPUTY DIRECTOR LEE: One other consideration,
12 Ms. Marin, I'd like to bring to your attention is that
13 basically the projects that we are proposing in List A are
14 the ones that met the Board-approved grant criteria and
15 the stipulations in the Kuehl Bill.

16 If your concern is the other projects in List B
17 that won't get any funding for this year -- and certainly
18 like to bring to the Board's attention that when we come
19 to the Board in May for our reallocation money, at present
20 time, it looks like there will be sufficient funds to
21 satisfy these and other needs the Board might have.

22 So, again, like I say, I think the current
23 ranking is consistent with the rules for the program. And
24 as Nate has mentioned, the Board can consider some
25 modifications to the grant criteria for the next 05-06

1 grant cycle to perhaps look at some of these other
2 considerations that you're bringing to the floor.

3 BOARD MEMBER MARIN: That's fair. I just think
4 that we either need to educate all of the cities to let
5 them know, you know, these criterias and let them know
6 very well in advance. It seems to me some cities are far
7 more savvy about our programs and their proposal and
8 what's available than others. But just, to me, just
9 really came up. And poor little City of Lynwood and City
10 of Campbell, their request is minute compared to what the
11 City of San Clemente with so many projects, and they still
12 don't get it. It seems unfair to me. If we can address
13 that, then that will be fine.

14 CHAIRPERSON PEACE: We would like to see
15 everybody get a RAC grant, because this is one of the
16 things we're trying to push here to get rid of tires. But
17 also the Board has been pushing that, you know, we should
18 give preference to a lot of the projects that use the
19 highest number of tires, so we're getting rid of the most
20 amount of tires. So those at the bottom of the list you
21 can see are using the least amount of tires. It is my
22 hope that the reallocation item in May will be able to
23 fund all the projects.

24 DEPUTY DIRECTOR LEE: One final point, if I may,
25 Madam Chair. Again, staff is very concerned and shares

1 the Board's concerns that we expand the opportunities to
2 more jurisdictions. And, indeed, this grant cycle does
3 represent a significant expansion so far as the number of
4 different jurisdictions that are participating over past
5 years.

6 Nate, what were the statistics? I think we only
7 had eight repeats this year.

8 MR. GAUFF: In the 03-04 cycle, there were 19
9 different jurisdictions that received grant awards,
10 because many had multiple projects. In this grant cycle,
11 only eight of those first 19 received grant awards. And
12 there were 29 new jurisdictions that received -- or that
13 are proposed for grant awards here. So it's been spread
14 over a wider group. And hopefully the next iteration will
15 get even wider.

16 BOARD MEMBER MARIN: I hope so. I hope so.

17 COMMITTEE MEMBER WASHINGTON: And Madam Chair, if
18 that doesn't work, we should probably revisit the criteria
19 we set forward, and then that way we won't have this
20 problem again. I think we need to revisit the criteria
21 that we set forth. That way we can specify in language
22 and figure out a way to make sure that if one city is
23 getting the bulk of the money, that there's opportunity
24 for the B List to then divvy in and perhaps benefit from
25 some of the resources. So we probably should bring it

1 back for the Board so we can revisit the criteria and set
2 forward the criteria for ourselves so we won't have to
3 have this discussion again.

4 MR. GAUFF: And we will be bringing criteria for
5 05-06 before the Board for consideration.

6 COMMITTEE MEMBER WASHINGTON: I had one question,
7 Madam Chair, before you move on.

8 Nate, the tonnage, how do you verify the tonnages
9 these folks give you from these local municipalities?

10 MR. GAUFF: As part of the payment process, the
11 grantee is required to supply proof of tonnage, whether it
12 be weigh tickets from an asphalt plant or a hauler, you
13 know, where they have to weigh the amount of material that
14 they have on their truck. They have to submit that proof
15 to us with their payment request after the grant is
16 concluded -- or after their construction project --

17 COMMITTEE MEMBER WASHINGTON: It's not just based
18 on their word going forward, here's the amount of tonnage
19 we've set forward. I want to make sure we weren't
20 receiving something from them in writing saying, "This is
21 the amount of tonnage we've done this year, and this is
22 how we'd like to be paid according to the tonnage."

23 So we do have a way of verifying it. We do have
24 a mechanism in place. We're not just taking your word.
25 Show us. So if it's a corrupt operation, everybody is

1 going to be corrupt in the operation.

2 MR. GAUFF: Right.

3 As far as applications are concerned, we have to
4 go on their word that they estimate those amounts, because
5 none of those projects have been constructed, as far as
6 these applications that we review. But once again, once
7 we enter into a grant agreement and subsequently pay them
8 once the project is completed, they do have to submit
9 proof of use of material.

10 COMMITTEE MEMBER WASHINGTON: But not during the
11 application process?

12 MR. GAUFF: Correct.

13 COMMITTEE MEMBER WASHINGTON: Oh, boy. Okay.

14 BOARD MEMBER MULÉ: Thank you, Chair Peace.

15 I just want to make a comment regarding Board
16 Member Washington's suggestion that we review the
17 criteria. I think a couple months ago I had mentioned,
18 and I don't know if it was at a Committee meeting or Board
19 meeting, that we, as a Board, really should take a look at
20 our grant process as a whole and broaden that scope. Not
21 just to look at this grant, but all of our grant programs,
22 and to really take a look at our eligibility criteria as
23 well as our rankings and try to develop some type of
24 consistency across the board.

25 Some of the themes I'm hearing today is we want

1 to increase our coverage to as many jurisdictions as
2 possible. So, again, I just think this would be a good
3 opportunity not just to look at this particular grant, but
4 all of our grant programs and do that.

5 So I don't know, Mr. Leary, how we would go about
6 that. But I would strongly recommend that we use this
7 opportunity to do that, workshop or whatever. Thank you.

8 EXECUTIVE DIRECTOR LEARY: Absolutely. We will
9 bring that forward. As you know, we have a GEOC in place
10 who will work on putting a comprehensive agenda item
11 together for your consideration.

12 BOARD MEMBER MULÉ: Thank you.

13 CHAIRPERSON PEACE: Any other questions on this
14 item?

15 We're going to go to Item 3.

16 DEPUTY DIRECTOR LEE: Thank you, Madam Chair.

17 CHAIRPERSON PEACE: Sorry. Item 4. We're going
18 to skip over 3, go to 4, and come back to 3.

19 DEPUTY DIRECTOR LEE: Item E is Consideration of
20 the Rubberized Asphalt Concrete and Civil Engineering
21 Product Marketing Concept and Scope of Work, Waste Tire
22 Recycling Management Fund, Proposed for Multi-Year
23 Funding. Chris Peck and Jon Myers will make the staff
24 presentation.

25 OFFICE OF PUBLIC AFFAIRS ASSISTANT DIRECTOR

1 MYERS: Chris Peck from the Office of Public Affairs will
2 be making the presentation.

3 SUPERVISOR PECK: Thank you, Jon.

4 Madam Chair, Board members, this item proposes
5 that the Board select a contractor to assist in promoting
6 the value and benefits of rubberized asphalt concrete and
7 other rubber-based civil engineering projects to state and
8 local officials who have decision-making authority over
9 projects where these materials could be used. Our goal is
10 to increase the use of recycled content rubber products in
11 civil engineering applications, RAC included, thereby
12 building and sustaining markets for these products.

13 The Board has other assets in play to promote
14 RAC. And we've talked about those this morning: The
15 Northern and Southern RAC Technology Centers and the RAC
16 technical expert for which the Board adopted the scope of
17 work at the February Board meeting.

18 The marketing contractor selected for this work
19 would draw upon the skills and expertise of the RAC
20 Centers, the technical expert contractor, and Board staff,
21 and orchestrate their participation in a marketing
22 strategy carefully crafted for this effort which we
23 anticipate would include a mixture of private meetings,
24 public presentations, and participation in conferences and
25 exhibitions. And we also plan to involve stakeholders in

1 an advisory capacity both in developing and implementing
2 this effort.

3 Before going into detail about the proposed scope
4 of work, I want to share with the Committee the outcome of
5 the discussion about this project just two days ago that
6 we had with the Executive Marketing Task Force. You'll
7 recall this group was created with the Board's approval as
8 a forum for the cross-program review of all of our
9 marketing and outreach activities to ensure they are in
10 line with the Board's vision, strategic plan, and
11 priorities.

12 The short explanation is that, as a consequence
13 of the Board's recent discussions about priorities and
14 subsequent activity by the Board's management staff to
15 develop action plans to respond to your priorities, the
16 Marketing Task Force recommended that we augment the
17 budget with funding from the Integrated Waste Management
18 Account and expand the scope of work for this contract to
19 include other recycled content products in the marketing
20 effort.

21 We haven't had time to adequately reflect on the
22 implications of this idea on this specific scope of work
23 that's in the agenda item today. That is, how we would
24 need to change it to accommodate the broader emphasis
25 without losing the integrity of the RAC project we set out

1 to accomplish initially. But staff can certainly re-shape
2 this and bring back a revised scope of work before next
3 week.

4 With respect to funding, I want to clarify what
5 we're proposing at this point from the Tire Fund. There's
6 \$175,000 in the current budget. That's fiscal year
7 2004-2005. In addition, the draft Five-Year Plan that the
8 Committee discussed last week includes \$400,000 annually
9 for RAC and civil engineering project marketing, and we
10 propose to add that amount in each of the next two fiscal
11 years for an additional \$800,000. But we can't encumber
12 those funds until we actually have a budget in fiscal year
13 2005-06 and again in 2006-07.

14 So the way the existing Resolution is written,
15 it's just right now encumbering the \$175,000, because
16 that's all the money we have in the budget right now. But
17 we can structure our request for proposals in a contract
18 that identifies total project funding over multiple years
19 to be funded incrementally as those funds become available
20 in the Board's budget. In the case of the scope of work
21 as it was originally drafted, that would be a total of
22 \$975,000 over three fiscal years, beginning with \$175,000
23 in the current year budget.

24 Now, what we're proposing -- I'm talking about
25 the expanded scope of work that the Marketing Task Force

1 recommended -- is to add in additional funding from the
2 Integrated Waste Management Account, perhaps in this
3 fiscal year and the out years as well, that would boost
4 the contract budget. Staff would like to give this some
5 more thought and come back to the full Board next week
6 with a clear idea of how these two concepts fit together
7 and what the overall budget needs to be. We'll bring back
8 a revised scope of work for the Board's presentation.

9 I'd like to emphasize we're responding to
10 direction from the Board to better market the wonderful
11 things we do and that we all know about. We want to find
12 the right contractor to help us put all this knowledge and
13 expertise out to local agencies in an effective marketing
14 campaign.

15 One last comment. I spoke with Yvonne Hunter
16 from the League of California Cities just yesterday about
17 this project, and that is the expanded project. The
18 League's members will be our primary target audience. Not
19 only was Yvonne receptive, she also offered the League's
20 assistance in creating and implementing a strategy that
21 will help us in the greening of local government.

22 I'll stop here and answer any questions.

23 COMMITTEE MEMBER WASHINGTON: I just want to make
24 sure that as a part of the input that we include the
25 California Society of Professional Engineers, as well as

1 the Operating Engineers. I think that would be a great
2 help to you guys as you move forward with these projects.
3 I just wanted to add that.

4 OFFICE OF PUBLIC AFFAIRS SUPERVISOR MYERS: I've
5 worked with both of those groups previously, so I will
6 definitely be in touch with them and include them in this.

7 BOARD MEMBER MARIN: You know, I sometimes think
8 that even the amount of money that would be allocated to
9 this effort would not be enough, because I think this has
10 the potential of really doing what we have not been doing
11 for a long, long time. And if we're successful with this,
12 I think that our RAC use would be very significantly
13 increased. That's what I'm hoping.

14 But this is what I was talking about in the first
15 item. You know, I need to know exactly how they're going
16 to interrelate. And maybe that's the part that I'm
17 missing. You know, I want you to know, I have no problem
18 with the concept that you guys bring forward. I just need
19 to make sure we're not going to have one project here
20 where the left hand doesn't know what the right hand is
21 doing. I want this to be a really truly coordinated
22 effort.

23 And if we're going to utilize the RAC Centers and
24 in order for them to do that, or at least the Northern
25 California RAC Center, that it's very clearly specified

1 and that we're going to be able to measure. Because at
2 the end of the day, you know, four years later when we've
3 spent a million dollars or however much we're going to
4 spend, what did we get for that? And when we give our
5 contract, I want very clear, specific measures. And
6 that's going to be also for the Tech Centers and for the
7 marketing effort.

8 I have no problem with this. I think that
9 eventually we're probably going to have to increase it, if
10 everything I can envision would happen. But we will have
11 something to show for it. That's really what we want. We
12 need to have these people held accountable, and I think we
13 will. So if you guys bring that piece together before the
14 Board meeting, I think that there will be no problems.
15 Okay.

16 BOARD MEMBER MULÉ: Thank you, Madam Chair.

17 Personally, I think this is a very, very good
18 idea. And I commend staff for thinking beyond their own
19 silos, so to speak.

20 One of the things that I've noticed since I've
21 been on the Board is that staff seems to be trying to work
22 to get the different branches, seems to be trying to work
23 cross-media-wise on things such as this. And a good
24 example of that was yesterday when we heard the
25 presentation on the C&D survey. And, again, this is yet

1 another example of how I see this working out, is our
2 staff or our marketing person or the our consultant,
3 whoever we bring in, would target certain audiences.
4 Obviously, one of them would be elected officials, public
5 works staff, engineers, as Board Member Washington said.

6 And I think rather than go in and talk just about
7 RAC, the message is how can that jurisdiction green their
8 government. And here are some ways that you can do so and
9 here's how the Board can help you, and again through
10 various grants and loans and whatnot, and basically
11 educate them on here's who we are. Here's what we do.
12 And here are some opportunities for you.

13 My only concern with this is that I want to
14 ensure that we don't utilize our Tire money to subsidize
15 other things we're doing. And it sounds like staff has
16 already covered that as well with funding from other
17 sources within our Board.

18 And so I strongly support this, because I know
19 that for us to go, for example, to an elected official and
20 talk to them about RAC and then two months later go back
21 and talk to them about civil engineering and two months
22 later talk to them about using crushed aggregate and road
23 base just doesn't make sense. It's not a good use of our
24 resources.

25 So I commend staff for your collective creativity

1 and innovation, and I really would like to see this
2 forward move, again keeping in mind we pull together
3 various funding sources from within the Board.

4 CHAIRPERSON PEACE: Thank you, Board Member Mulé,
5 because I had some of the same concerns. \$975,000 over
6 three years, you know, that's a lot of money. And you
7 have to remember this is Tire money. Even though it is a
8 great idea to work cross media and I'm all for that to
9 work cross media and cross all our different divisions to
10 green government, and it's a great idea, but we still need
11 to keep the RAC focus. You know, like Chris said, we've
12 got to figure out a way to keep the RAC focus we're trying
13 to promote in the Tire Program while also doing the much
14 bigger promotional thing we're trying to achieve.

15 I was just wondering, is there any idea,
16 Mr. Leary, on how much money we can expect from the IWMA
17 to put into this effort?

18 EXECUTIVE DIRECTOR LEARY: Current projections
19 are we can probably fund up to \$50,000 in the current
20 year. And then with the passage of the budget come July,
21 we'll do our normal budgeting effort at the beginning of
22 the fiscal year and parcel out a larger quantity of money
23 for next fiscal year and subsequent fiscal years.

24 I think with a better evaluation of a portion of
25 the message that pertains to the non-tire related will

1 drive the decision-making process to how much money we can
2 make available or need to make available out of the IWMA
3 to balance the respective fund sources in respect to the
4 effort. So we have some further work to do. But given my
5 sense of the Board's priorities about this, we're
6 certainly going to make this one of the highest priorities
7 of this money.

8 CHAIRPERSON PEACE: Makes sense to all be working
9 together.

10 EXECUTIVE DIRECTOR LEARY: Thank you for the
11 question.

12 MR. LEVEILLE: I don't have a slip, but I would
13 like to just make a point.

14 I appreciate the comments of all four of you and
15 the Executive Director. On behalf of the Tire Dealers
16 Association, I'm Terry Leveille, TL & Associates
17 representing California Tire Association, north and south.

18 As you well know, I've made this issue one of my
19 major issues during the development of the Five-Year Plan.
20 And this consciousness and sensitivity to using the Tire
21 Fund for Tire Fund and not seeing it as what I used to
22 refer to as the cash cow is heartening. And so I want to
23 thank you all.

24 CHAIRPERSON PEACE: Any other questions?

25 We're ready to go to item 3.

1 DEPUTY DIRECTOR LEE: Thank you, Madam Chair.

2 Item 3 is a special presentation from the Rubber
3 Manufacturers Association on new technologies and trends.
4 This will be an oral presentation. I believe it will be
5 coordinated by Ms. Tracey Norberg, who's an executive with
6 the Association. And she will be introducing various
7 industry representatives that want to speak to us on a
8 variety of different topics this morning.

9 Tracey.

10 MS. NORBERG: I believe we have a slide
11 presentation. Just like that, it happens.

12 (Thereupon an overhead presentation was
13 presented as follows.)

14 MS. NORBERG: Good morning. I'm Tracey Norberg
15 from the Rubber Manufacturers Association. I'm the Vice
16 President for Environment and Resource Recovery. And
17 Madam Chairwoman and Board members, I'm very happy to
18 speak with you again this morning.

19 Today we have a special presentation for you. As
20 Mr. Lee mentioned, we've brought a number of tire experts
21 from the industry to provide you with a comprehensive
22 overview of some of the critical issues facing the
23 industry and an overview about the complexities and the
24 performance demands on tires.

25 --o0o--

1 MS. NORBERG: Just for your reference, these are
2 our companies. On the tire side, we have seven member
3 companies that represent the vast majority of the light
4 vehicle market -- light vehicle tire market. And
5 representatives from four of those companies will be
6 making presentations today.

7 --o0o--

8 MS. NORBERG: And representatives from six of
9 those companies are here with us today. Here's a list of
10 the folks in the room.

11 --o0o--

12 MS. NORBERG: And then the next slide shows us
13 what presentations are encompassed by this slide
14 presentation and the discussion we'll have.

15 First, we'll start out with a discussion on what
16 is a tire, what are the tire's performance demands. And
17 Red Hermann from Michelin North America will lead that
18 discussion with you.

19 The next presentation is on the TREAD Act, which
20 as you may know is the federal law that was passed back in
21 2000 that required major regulatory changes effecting the
22 tire and vehicle industry. And Dennis Candido from
23 Bridgestone will shepard that discussion.

24 The next discussion is really I think at the crux
25 of the issues that you all are concerned with, the impact

1 of the tire on the environment. And here we'll address
2 the trade-offs in the tire design and how different
3 designs effect performance and safety. Dave Chapman from
4 the Goodyear Tire and Rubber Company will lead that
5 discussion.

6 The fourth presentation is on recycled content
7 and new tires. And Don Amos from Continental Tire North
8 America will present that information. And, particularly,
9 Continental has been selected to give you this
10 presentation because of work Continental has done in the
11 area of recycled content in coordination with the state of
12 North Carolina.

13 The final presentation, the cleanup presentation
14 at the end, will be me once again. And I'd like to share
15 with you some other activities in California and also at
16 the federal level looking at some of these issues.

17 So with that, I will turn it over to Red Hermann.

18 And, please, as we go through these slides,
19 because we've got a pretty comprehensive presentation, I'd
20 ask with the Board's indulgence that if you have points of
21 clarification, we'd be glad to address them as we get to
22 them in the presentation. But if it would be possible to
23 hold more comprehensive discussions until the end, I think
24 many of your questions may be answered later in the
25 slides. So I think that will help us get through all the

1 information and have a good discussion after we're
2 finished.

3 COMMITTEE MEMBER WASHINGTON: I have a real quick
4 one, Tracey. Firestone isn't on there. Is there a
5 particular reason? There's a lot of Firestone tires out
6 there.

7 MS. NORBERG: Firestone is a brand of
8 Bridgestone. So they're definitely represented here in
9 the room today.

10 --o0o--

11 MS. NORBERG: So with that, Red Hermann.

12 MR. HERMANN: Good morning. I'd like to start
13 the discussion today on what is a tire. And the first --

14 --o0o--

15 MR. HERMANN: -- slide, this is the way we
16 normally think of a tire. It's a round shape made of
17 rubber.

18 What I'd like to do with you this morning for a
19 few minutes is to really explore, is it that simple, or is
20 it much more complex than that? And why is it complex?
21 And what I'd like to do is to take the time to say it's
22 complex, because it needs to be in order to satisfy our
23 demands as drivers for both safety and performance. So
24 that's our emphasis on this first presentation.

25 --o0o--

1 MR. HERMANN: In this slide, it's a slide that
2 explains that complexity. And I've actually brought along
3 some cuts. So nothing like a hands-on show and tell.

4 So, Tony, if you would bring these up and let the
5 Board members have a look at this.

6 In addition to the slide, you can sort of touch
7 and feel what it is we're talking about.

8 So let's start with this first slide. And I'm
9 going to use the pointer. A typical passenger tire like
10 this has about 20 components. So there are a lot of
11 different parts that go into the tire. It's not just a
12 single rubber, by any means. In addition to the 20
13 components, those 20 components are made up of about 200
14 raw materials, which is what is represented in this
15 upper -- excuse me. I already messed up and went forwards
16 when I should have went backwards.

17 COMMITTEE MEMBER WASHINGTON: I was counting the
18 components, and you were going to slide the thing away
19 from me.

20 MR. HERMANN: I was trying to get back.

21 The upper right-hand corner is the representation
22 of all of the raw materials. And those include
23 elastomers, carbon black, steel, fiber, and a lot of
24 chemicals that go into building up a tire.

25 Now let's go through the tire itself. If you

1 look at starting from the inside out, first of all,
2 there's a special butyl rubber that serves as the
3 interliner of the tire. And its sole purpose is to give
4 you very good air retention. Tires depend on air
5 pressure. And that rubber has very low porosity, so it
6 keeps the air in the tire.

7 Then going from inside out, as you build up a
8 tire, the next thing you add to the tire is the casing
9 ply. That's generally -- in a passenger tire, it's
10 polyester. And it essentially gives you the shape and
11 reinforces the tire as an air chamber.

12 So then if you go down to the bead area, what
13 holds the tire onto the rim is that steel bead wire that
14 you see at the very tip. That's steel.

15 And then surrounding that steel is a very hard
16 rubber, because that's the part of the tire that's up
17 against the rim. And it has to be very hard to resist any
18 of the chaffing that you would get. So it has a very
19 special purpose.

20 And then just above that is another
21 reinforcement. And what it does is allows the tire
22 designer to tune the tire depending on whether he wants
23 more performance or more handling. So that's a special
24 tire or special component of the tire that allows some
25 adjustment, because there's many different performances

1 that are required.

2 And then as you go up, you see there are also the
3 steel belts. And the steel belts are two steel belts that
4 are crossed one over the other to give you the very rigid
5 tread that you need on top of the tire.

6 What a radial tire does is to give you very
7 flexible sidewalls and a very rigid tread pattern or
8 block, because you want to keep it on the ground, at the
9 same time you allow the tire to flex in the sidewall area.
10 And because it is flexing, it develops a lot of stress in
11 that area. So there's a special piece of rubber between
12 the casing ply and the tread, or the steel belts, to
13 essentially isolate that and reduce that stress. And I'm
14 going to talk a bit more about that later.

15 There's also a nylon cap ply on the very top of
16 the steel belts. And what that does is prevent the tire
17 from growing as it goes at high speed, because it
18 essentially wants to centrifugate, or grow. By putting
19 that extra layer on it, it keeps the tire from expanding,
20 if you will, as it's going at high speed.

21 And, of course, there is the tread band itself,
22 which is at the very top. And it's composed of different
23 rubber components depending on the type of tire. It's
24 very different, for example, between the snow tire and a
25 high performance tire. So it has to serve a lot of

1 different purposes. And there's a lot of different
2 compounds that are used in that tread pattern.

3 So I think I've covered most of them.

4 On the sidewall, the sidewall has a lot of
5 antiozonants, antioxidants, and waxes that prevent the
6 tire from degrading over time as it ages and is exposed to
7 ozone and sunlight and those kinds of things. There's a
8 lot of very particular ingredients that go into the
9 different compounds. And just recognizing there are a lot
10 of different tire compounds, a lot of different materials
11 in each of these is a point to keep in mind when we talk
12 about recycled content. Because it's not one rubber we're
13 dealing with. It's several different rubbers that make up
14 a tire.

15 --o0o--

16 MR. HERMANN: So if we go to the next slide then,
17 what this slide tells you is that the only contact that
18 you have between your 3,000-pound car and the road is the
19 contact patch of the tire, which is about the size of one
20 hand. So you have four patches, if you will, of rubber
21 that connect your vehicle and you to the road. So there's
22 a lot that that contact patch has to do. So we just want
23 to keep that in mind.

24 And for a truck tire, it's about three-hands'
25 full. So it's bigger, but you're talking about an

1 18,000-pound vehicle. So the only thing between the road
2 and that very heavy vehicle is that very small contact
3 patch.

4 And safety is, of course, our primary concern in
5 all of these aspects.

6 --o0o--

7 MR. HERMANN: Just looking at the tire, what does
8 it need to do on your vehicle? And it's essentially three
9 things. First of all, it has to carry the load of the
10 vehicle. And, again, I'm using 3,000 pounds. But it has
11 to essentially support a 3,000-pound vehicle. The tire
12 weighs about 20 pounds. So four of those, it's less than
13 100 pounds, is carrying a 3,000-pound vehicle. So it's a
14 very efficient structure.

15 And a big part of that is keeping proper air
16 pressure in it. Because it's the air pressure that allows
17 us to, in fact, use a very relatively light material or
18 light tire weight to carry all that load.

19 The other thing the tire has to do, and this
20 seems very obvious, is to roll. But there's much more to
21 it than that, because it has to provide through the
22 contact patch, again, the acceleration that you need and
23 even more importantly, the braking. When you want to
24 stop, the only thing between you and the road is this very
25 small contact patch. So all the traction to stop that

1 vehicle is in that contact patch. So the tire plays that
2 role to stop you.

3 The other thing it does, when you turn the
4 steering wheel, again, it's that contact patch interacting
5 with the road that gives you the forces to turn. And it
6 has to do that very predictably. So the tire is acting in
7 all three directions. We call them X, Y, and Z. But it's
8 vertical, lateral for steer, and back and forth for
9 traction and acceleration.

10 --o0o--

11 MR. HERMANN: Let's look just for a moment at wet
12 traction, because that's extremely important and the most
13 critical area of traction. What the tread pattern of a
14 tire does is it acts in three ways. The first thing the
15 tire is doing is essentially pushing the water out of the
16 way. And it has special grooves in the sides to allow the
17 water to evacuate. The tire also has kind of a squeegee
18 effect on the water. It's pushing the water and kind of
19 drying the road, but it can't dry it perfectly. You still
20 have a residual film of water. That's why you need very
21 small cuts and fine edges of a tire to break through that
22 film of water. And that's how you get traction in the
23 wet.

24 Now, at the same time the tread pattern takes
25 into account wet traction, we have to keep in mind it has

1 to deliver very long wear. That's a tradeoff sometimes
2 between how do you get good wear and how do you get good
3 traction.

4 --o0o--

5 MR. HERMANN: Vehicle handling. I mentioned
6 before that in order to steer the tire, you essentially
7 have to maintain the contact patch. So in this slide, if
8 you'll just bear with me, the car is going along this
9 arrow. You've turned the wheel to the right. Okay. Now
10 what happens? The contact patch is staying on the ground.
11 Even though it's rolling, it wants to stick to the ground
12 in that direction. When it does that, you're creating a
13 thrust that pushes the cars essentially to the side.
14 Okay. That's how a tire steers your car on the road.
15 It's that twisting of the tire between the contact patch
16 and the wheel that allows it to turn.

17 Now, the real trick for the designers is to be
18 able to do that in a way that's very predictable for the
19 driver, especially when you reach the limit. Let's say
20 you're in a collision avoidance maneuver. And you have to
21 very abruptly turn. You don't want the tires to suddenly
22 break away and you've lost traction completely. It has to
23 happen very predictably and very safely. That, too, is a
24 challenge of how you design the tire for safety.

25 --o0o--

1 MR. HERMANN: We're going to look now at the wear
2 aspects of a tire. And this graph simply shows the very
3 broad distribution of tire life that consumers get
4 depending on how you drive. We say rolling conditions.
5 Rolling conditions are essentially the aggressiveness of
6 the driver and the road conditions themselves. Some
7 drivers get as little as 20,000 miles. Typically, you get
8 about 40-some-thousand miles.

9 This has been -- a lot of progress has been made
10 over the years in how much mileage you get out of your
11 tires compared to a few years ago. Some, if you're very
12 good, very smooth, maintain your alignment, maintain your
13 pressure, don't drive aggressively, you can get 50-, 60-,
14 70,000 miles on tires. Now I'm going to come back to why
15 this is important to us in designing the tires.

16 --o0o--

17 MR. HERMANN: Because as that tire is rolling
18 along the road, keep in mind that contact patch that I was
19 talking about before, what it is showing is each part of
20 the tire as it rolls through contact, it actually
21 deflects. It moves from sort of the top of the tire, if
22 you will, to the bottom. But as it goes into the bottom,
23 it actually squeezes down against the road. And that's
24 important for the performance.

25 --o0o--

1 MR. HERMANN: But the important key here is that
2 when it's doing this, and that's what we're showing here,
3 number one is the unloaded tire. So you see it's pretty
4 much standing up tall. And then as it loads into the
5 contact patch, you're pushing down on the tire. So you're
6 creating a lot of stresses in the tire when you do this.

7 --o0o--

8 MR. HERMANN: If a tire is going to go 60 miles
9 an hour -- if you're driving at 60 miles an hour, a single
10 point on the tread is going through contact about 26 times
11 every second. So the tire is spinning very fast. If that
12 tire lasts 60,000 miles, that means a single point on the
13 tire has gone through this bending cycle 90 million times.
14 So it's very much an endurance product. It has to last
15 the total life of the tire, all the time you're giving it
16 this flexing.

17 --o0o--

18 MR. HERMANN: The way we look at that is what we
19 call an energy map. What's happening when you go through
20 that contact -- remember, it's being squeezed. And where
21 it's being squeezed is essentially in this area right at
22 the edges of the belt. That's why we have a special
23 material there to relieve those stresses. But there's
24 heat building up in this area. So the tire has to be able
25 to resist this kind of bending for millions and millions

1 of cycles with that heat buildup without essentially
2 coming apart. If you don't maintain your pressure, you've
3 got a lot more deflection, a lot more stress, and you risk
4 having belt separation.

5 --o0o--

6 MR. HERMANN: Another aspect of the tire we need
7 to consider is comfort. Comfort is one of the main
8 criteria of customer satisfaction. It's also what allowed
9 vehicles to become a lot more popular compared to wheels
10 we had when they were on carts and just about shook you to
11 death. With the advent of the pneumatic tire, you could
12 go much further distances comfortably, and it
13 revolutionized the tire industry.

14 So as it goes through contact, it has to be able
15 to absorb any kind of road obstacles. That's one of the
16 things we really expect of tires, is freedom from bouncing
17 around when you go over something.

18 The other thing that it has to do and another
19 environmental consideration is the noise that a tire
20 makes.

21 --o0o--

22 MR. HERMANN: And it does make a noise. And we
23 do a lot of special work to try to prevent that from
24 happening.

25 You see here a tread pattern. On the upper

1 right-hand corner, if all the tread blocks came into
2 contact at the same point, you'd have an impact
3 essentially every time you came into another tread block.
4 So what we do is stagger those blocks so they're not all
5 coming into contact at the same time. Even doing that, if
6 all the tread blocks have exactly the same length, you'd
7 have essentially a pitch. It would be almost like a horn.
8 What we have to do is have to have different lengths of
9 these tread blocks.

10 And we have computer programs that arrange those
11 in a way to give you a very blank sort of white noise as
12 much as possible. So there's a lot of consideration that
13 goes into just the noise reduction in the tire. And,
14 again, there's no insignificant influence on wear as well.
15 Because while we're doing this, reducing noise, we're
16 worrying about wet traction, we also have to have a tire
17 pattern that wears very evenly, very smoothly to get the
18 maximum life out of a tire.

19 --o0o--

20 MR. HERMANN: Another thing that is very
21 important and has a very big environmental impact is
22 rolling resistance. We've talked about the fact the tire
23 is deflecting. So as it's deflecting, it's warming up.

24 --o0o--

25 MR. HERMANN: And that means it's losing some

1 energy. What this graph shows quickly is the progress
2 that's been made. And this is a century that we have
3 here. And the red tire represents passenger tires. The
4 blue line represents truck tires.

5 And I won't go through the detail of this slide.
6 But what you can see here is from the very early solid
7 tires to where we are today, there's been tremendous
8 progress made in reducing the rolling resistance of the
9 tire. We don't really think about it too much. But our
10 tires are consuming gasoline as we're rolling down the
11 road. Okay.

12 But, again, if you look at sort of the
13 efficiency -- and this is because I'm a French company, we
14 use metric. So you have to bear with me on the metric
15 units that we have here. This represents kilograms per
16 ton. What that means is that if you have a tire who's
17 coefficient of rolling resistance is about one per ton,
18 that means it's far less than 1 percent of energy lost for
19 every 100 pounds of load that it's carrying. So it's
20 pretty efficient even at that.

21 But we work with tire manufacturers and others to
22 try to get as good as we can. And we've made tremendous
23 progress, and we're still trying to make further progress.
24 You can see from this slide we're almost approaching train
25 wheels on a track, which is yellow. Of course, a steel

1 wheel on a steel track doesn't have much rolling
2 resistance. But you could very well have steel wheels on
3 your car, but it wouldn't be a very comfortable ride.
4 Plus, your traction wouldn't be real great either. So
5 tires are doing a pretty good job of rolling efficiently
6 on the road.

7 --o0o--

8 MR. HERMANN: This is a spider diagram. And
9 you're going to see more of these. I'm not going to go
10 into detail on this one. But what you see on each of the
11 spokes that we have here is a tire performance. For
12 example, starting at the top it's wet braking and then
13 aquaplaning, wet handling, snow, and all the rest.

14 What we do is we use this kind of diagram to
15 decide how it is that we're going to balance the
16 performance of a particular tire. When we work with a car
17 manufacturer -- and you have to realize that every car has
18 a tire that's designed specifically for it when it's new.
19 We work very closely with the tire manufacturers. When we
20 dialog with them, we're talking with them about a spider
21 diagram like this. What do you want for that car? If
22 it's a sporty car, maybe they want a lot of handling.
23 Maybe they want good traction.

24 We talk to them in terms of, what are you going
25 to have to give up in that case? If it's a family car

1 that has a lot of volume, they want very low rolling
2 resistance. In that case, what are you going to have to
3 give up in order to get that rolling resistance?

4 So this is a diagram. And, again, you're going
5 to see a bit more of these, because it's the way we used
6 to talk about tradeoffs in tire performance. You simply
7 can't expand the whole circle. I mean, we have over time.
8 But given the technology we have today, this is the way we
9 use performance to say, where do you want -- what do you
10 want to emphasize and what will be the tradeoffs against
11 that emphasis?

12 Now why is it that we need so many different
13 kinds of tires and all of these performance tradeoffs?

14 --o0o--

15 MR. HERMANN: These next two slides simply show
16 that the reason we need that is because there are so many
17 different kinds of vehicles that we are putting tires on.

18 This first slide is the SUV light truck. And I
19 won't go into the detail of this. But you can see just by
20 going around the circle, even in that category, there are
21 a lot of different kinds of vehicles. And, again, all of
22 those require different sorts of tires in different sizes.

23 --o0o--

24 MR. HERMANN: And this is a similar chart that
25 looks just at cars. So you see on the right-hand side all

1 of the different segments, if you like, of vehicles:
2 Compact, entry, standard, all the way to sports cars,
3 luxury, et cetera. Again, there are a lot of different
4 tires, a lot of different performances that go into those
5 tires. I think currently we estimate there are about
6 13,000 skews. A skew is a stockkeeping unit. That means
7 it's a different tire, different size, either as a sports
8 tire or a snow tire or whatever that segment might be.
9 And that's not even taking into consideration our
10 individual brands. So if you go beyond that, it expands
11 even way beyond that.

12 So that's the end of my presentation. And I'll
13 turn it over to -- yes, Mr. Washington.

14 COMMITTEE MEMBER WASHINGTON: What's the impact
15 on tires -- there are a lot of people who have two cars,
16 and one car sits in the garage. And I was wondering if
17 you guys had any comparison as to what's the impact on
18 those four tires that are just sitting there versus the
19 one you did on definition on tires that are on a constant
20 roll?

21 MR. HERMANN: That's a very good question. We
22 experience that problem a lot with campers and things like
23 that that are even more the case when you take them out
24 maybe once a year. And, of course, the recommendation is
25 to get the vehicle up off the tires so they're not sitting

1 on just one spot that whole time. But tires don't have an
2 indefinite shelf life. They won't last 10, 15 years. So
3 you're right. It does have an influence.

4 I think between two cars if you're using them
5 some -- I mean, even the second car, you're not just
6 leaving it sit there for long, long periods without ever
7 moving. I don't think it would have much of a problem.
8 But if it's like a camper, that's something you need to
9 pay attention to.

10 But it is something that you need to pay
11 attention to. And especially the air pressure. If it's
12 sitting there for a long time and you haven't looked at
13 the air pressure -- everything I've said about performance
14 is dependant upon having the right pressure in the tire.
15 That's extremely important.

16 COMMITTEE MEMBER WASHINGTON: It just raised a
17 concern where you talked a little bit about this patch,
18 you know, in terms of the patch. And I was wondering what
19 impact would it have with it just sitting there? If
20 someone rolls in and they sit the car on the patch in that
21 particular spot, what happens? Does it take the life out
22 of the patch, or what happens to that patch?

23 MR. HERMANN: Some of the older tires that use
24 nylon as the carcass ply, the nylon would take a set and
25 it would be flat. So the first three or four miles you

1 drove, it would go thump, thump, thump, thump. But then
2 it would kind of go away and smooth out after that. But
3 with polyester, that's not really a problem.

4 BOARD MEMBER MARIN: Who's going to speak on the
5 recycled content?

6 Thank you. You may sit down.

7 MR. CANDIDO: Good morning. Thank you for the
8 opportunity today to talk to you.

9 I've been asked to explain details of the TREAD
10 Act and how it has impacted the tire industry.

11 --o0o--

12

13 MR. CANDIDO: Let me start by pointing out that
14 the TREAD Act, which was the Transportation Recall
15 Enhancement Accountability and Documentation -- they were
16 very creative in developing that term -- of 2000 has many
17 provisions. And it encumbers all of those listed here on
18 this chart. And of those many provisions, it has a very
19 significant effect on many industries, not just tire
20 manufacturers. The TREAD Act effects automobiles and all
21 components that go into those automobiles. It effects
22 tire retailers, as shown here, in the prohibition of sale
23 or lease of defective or non-compliant tires; tire
24 manufacturers; and even the child restraint seats for
25 children in cars; and, of course, the tire manufacturers

1 and the vehicle manufacturers.

2 What I'm going to focus on today is specifically
3 those areas that effect the tire industry. And that is
4 listed, as you can see, in the second one, standards for
5 tires, DOT 139, and also 138, which is the tire pressure
6 monitoring system rule. And I'll get into those in a
7 little more detail.

8 --o0o--

9 MR. CANDIDO: The 139 regulation has two
10 components to it. One relates to test requirements for
11 tires, and the other has to do with labeling. In regards
12 to this rule, it was issued in 2003, June 26th, and is
13 effective June 1st, 2007. So we're in transition of
14 adopting this regulation.

15 On the test side, it actually has major changes
16 to the high speed and endurance tests, with increased
17 speeds and a low pressure phase on the endurance test.

18 On the other aspects of the regulation that exist
19 today, such as bead unseat strength, these are unchanged
20 at the moment because NHTSA needs more work in renewing
21 how those might be modified or improved. And there's also
22 an aged endurance test that's under study for a 2006 rule.
23 And that will involve testing a tire after it has been
24 appropriately aged in some artificial manner.

25 The other aspect of the TREAD Act is labeling.

1 And there are two parts to that. One effect tires and the
2 other effects vehicles. On the tire side, we are now
3 going to be required to put on the tire the serial
4 identification on both sides of the tire, including a date
5 on what is referred to as the intended outboard side. On
6 the whitewall tire with the white letters, the intended
7 outboard would obviously be clear. In some other tires,
8 it's not so clear. But it is intended to have that full
9 serial on the intended outboard so a consumer could
10 readily see it and not have to crawl under the car to look
11 at it.

12 On the vehicle side, they've made very major
13 changes in the standardization and information and
14 location of that information. As Red Hermann was talking
15 about, inflation pressure is extremely critical. And the
16 important part of this part of the legislation is that on
17 the vehicle placards, they will now have to be at a
18 certain point on all vehicles. So you won't find one
19 stuck in a trunk, a glove compartment, on a door. They'll
20 all have to be in the very same location and have
21 standardized information, which is the air pressure to use
22 on the tire.

23 --o0o--

24 MR. CANDIDO: The high speed test shown here from
25 the current regulation, which is DOT 109, the speeds have

1 been increased substantially. The affect of that is to
2 add increased heat and centrifugal forces to the tire
3 during this test requirement. And in specific relation to
4 light truck tires, previously, there was no high speed
5 test requirement. That's changed, and that has been added
6 to the same level as passenger tires. The affect of this
7 is essentially effects the tradeoff that Red was talking
8 about, that there's less design margin for performance
9 tradeoffs. This affects mostly the mass-market tires, not
10 the high performance tires that already have high speed
11 capabilities. But the ones we refer to as speed-rated
12 tires will be effected by this.

13 --o0o--

14 MR. CANDIDO: On the endurance test side, there's
15 some significant changes. And one that is most
16 significant is the increase in this test from 50 miles an
17 hour to 75 miles an hour, which adds a significant amount
18 of heat and deflection. The affect of that in addition to
19 a low pressure phase test, which has been added, in which
20 we have to underinflate the tire down to 20 PSI and run it
21 for an hour and a half, 90 minutes, and still not have any
22 kind of structural damage to the tire.

23 What this does is these tests are run on a wheel,
24 a round 67-inch drum. They're not run on a flat surface.
25 That creates an anomaly in the sense that we get this

1 tread pattern chunk -- and I'll show you a few examples --
2 that is just not seen in the real world. And we have a
3 major issue with that. And we have a petition that we've
4 sent to NHTSA on this issue. And, hopefully, they're
5 going to resolve it in some way.

6 As far as light truck tires, again, you can see
7 the changes that have been made. The inflation pressure
8 has been dropped on this test to 75 percent of its rate
9 from the full effect. And also the speeds have been
10 increased substantially, as well as some changes to the
11 load steps.

12 The overall affect on these tests are that we may
13 have to redesign some of our all-season and winter tires
14 to comply with these, to deal with some of these
15 conditions we don't even see in the real world. And these
16 changes may effect and may actually work counter to
17 rolling resistance. To ensure that we don't get tread
18 pattern chunk-out, which I'll show you some examples of,
19 we may, in fact, have to adopt compound changes that are
20 actually going in the other direction. The tradeoff
21 issue, unfortunately.

22 --o0o--

23 MR. CANDIDO: So in this illustration on the next
24 slide, you can see that the tire is run on a 67-inch drum.
25 And it has the effect of increasing the deflection

1 compared to running that tire on a flat surface. What

2 this does is it creates --

3 --o0o--

4 MR. CANDIDO: -- excessive heat. This is a

5 thermogram chart that shows on the upper left when the

6 tire is run on a flat surface the average temperature

7 running is 157 degrees. When you run it on that drum, it

8 goes up to 195 degrees, which is not really what the real

9 world sees. The effect of that --

10 --o0o--

11 MR. CANDIDO: -- is you get these kinds of

12 conditions happening, as I've shown here, what we call

13 tread chunking where small elements of the tread peel off

14 during the test. Right now, that's considered a failure.

15 Unfortunately, that is not what we see in the real world.

16 --o0o--

17 MR. CANDIDO: And winter tires show the same kind

18 of things. Of course, we've made great improvements in

19 winter tires as an industry for ice and snow traction.

20 But with these same kinds of small elements, we put many

21 of these small cuts to get optimum ice and snow traction.

22 They actually tear off. That's another cause for concern.

23 So we have made a major petition to NHTSA to deal with

24 this issue, because we don't feel it's really a

25 representative thing. The endurance test should really

1 deal with the internal structure of the tire, not the
2 external parts. That's why we're working on this one.

3 COMMITTEE MEMBER WASHINGTON: Dennis, based on
4 the heat that you just showed us, is that based on -- it
5 doesn't matter what time of the day. Like if it's 12:00,
6 noon, Sacramento, on June 5th, which is probably 110
7 degrees, versus Southern California on February the 3rd,
8 which is probably 65 degrees, how did you guys determine
9 that amount of heating pattern?

10 MR. CANDIDO: That's a very significant part of
11 what this phenomena is all about. It's excessive heat
12 caused by that deflection. These tests are run at 100
13 degrees in a controlled environment at 100 degrees
14 Fahrenheit.

15 --o0o--

16 MR. CANDIDO: Now the other part of the TREAD Act
17 has to do with the tire markings, the serial number, as we
18 refer to it. And I mentioned it has this intended
19 outboard side, full serial, and the opposite side with a
20 partial serial without the date.

21 Here is the additional serial adoption time
22 schedule, which by September of 2007, 100 percent of all
23 tires have to have these additional serial numbers. On
24 the intended outboard side, 2009, that was a change made
25 by NHTSA. And it may not sound like a big issue to put a

1 serial number on, but in a manufacturing process --

2 --o0o--

3 MR. CANDIDO: -- for the industry, this is the
4 effect of it. For a number of manufacturers, we had to
5 make major factory equipment changes because tires are
6 manufactured in a certain orientation. And to change all
7 of our molds and equipment to comply with this, the total
8 effect, as we submitted to NHTSA, was about \$224 million
9 to the industry. Despite our arguments to what is the
10 cost benefit, NHTSA implemented the rule and we're
11 proceeding with it. We're proceeding to implement this to
12 these timetables.

13 --o0o--

14 MR. CANDIDO: The last item that I wanted to
15 cover is tire pressure monitoring, which is a system that
16 will be implemented into new vehicles to indicate when a
17 tire is significantly underinflated. And, in essence,
18 that's an excellent feature to a vehicle. We totally
19 support the concept. A new NPRM was issued in September
20 of last year after the first NPRM was vacated by a U.S.
21 court that was filed because of the way it was written.
22 So NHTSA reissued a new NPRM with the schedule to adopt,
23 as shown, that by September of 2007 all vehicles must have
24 these warning systems in there. And as you know, air
25 pressure is so critical that --

1 --o0o--

2 MR. CANDIDO: -- is an excellent thing. However,
3 and this is what I would like to point out to you today,
4 as a tire industry position, we welcome the introduction
5 and use of tire pressure monitoring systems, since
6 properly specified and used, they can improve safety and
7 reduce fuel consumption. However, we strongly object to
8 this latest NPRM as written because of the following. And
9 here are the points that we object to in the current NPRM,
10 is that it permits a tire to be underinflated by as much
11 as 25 percent before it activates. And we've taken a
12 strong position against the NPRM written in this manner,
13 because of all of the durability aspects it effects and,
14 for that matter, the fuel consumption it effects.

15 It is also not required to work on spare tires or
16 replacement tires. As you know, the owner of a vehicle
17 might put two or three sets of replacement tires on during
18 the life of that vehicle. The rule only requires it to
19 work with the tires that come on the original vehicle. We
20 just don't understand why that has to be.

21 The system test requirements are limited to 100
22 kilometers, or 62 miles an hour. We all know the speeds
23 driven on interstates are much higher than that. Our
24 concern is that underinflated tires running at the higher
25 speeds are exactly the thing we want to avoid. And this

1 rule does not require them to test the system at those
2 higher speeds. And there's also a ten-minute delay
3 permitted before activation, which we feel is too long.

4 And, lastly, we do not feel the rule stressed
5 enough information in the owner's manual or placard on
6 that system, it's meaning, and how it's to be used. So we
7 have filed a petition on all of these points, and as an
8 industry are strongly opposing this NPRM for these
9 reasons. So that's my presentation.

10 BOARD MEMBER MARIN: One of the questions for me
11 is with all of these new requirements, what impact will
12 that have on the life cycle of the tire, the life span,
13 rather, of the tires?

14 MR. CANDIDO: In and of itself, I don't think the
15 current TREAD Act regulations themselves will have any
16 significant effect on tread wear.

17 BOARD MEMBER MARIN: From my perspective, I want
18 them to be worn as -- to have a longer life span, if you
19 will. That's --

20 MR. CANDIDO: The major impact on tread life
21 tradeoff is not in the high speed capabilities or the
22 endurance test capabilities this contains. It's more in
23 any effect on rolling resistance. Rolling resistance and
24 tread wear are two areas that do trade off one against the
25 other.

1 COMMITTEE MEMBER WASHINGTON: One final question
2 for you. In terms of the consumer, it sounds like to
3 me -- and maybe you can help me. And this is coming from
4 I was a legislator in my former life before I came to the
5 Board. The consumer then doesn't benefit, because if you
6 wait for a tire to underinflate before it's -- the
7 activation will tell you this tire is having a problem.
8 Is this issue through the courts, or was it passed through
9 legislation, the NPRM?

10 MR. CANDIDO: The NPRM was issued through the
11 National Highway Traffic Safety Administration as a
12 consequence of the TREAD Act. The TREAD Act, the
13 legislation required them to issue a rule. And it's the
14 nature of how they wrote the rule that's at issue here,
15 not the fact that the TREAD Act requires TPMS systems. We
16 support that. It's the manner in which the rule was
17 written.

18 COMMITTEE MEMBER WASHINGTON: All right.

19 CHAIRPERSON PEACE: Let me ask one question.
20 When you said it permits a tire to be underinflated before
21 activating by as much as 25 percent, is that because the
22 auto industry was pushing for that?

23 MR. CANDIDO: Well, we're at a strong
24 disagreement with the auto industry on that. And to be
25 fair, yes. They have made a big point of this. The point

1 being that they feel that if the activation is to be just
2 at the point when the tire becomes underinflated as
3 opposed to 25 percent, they would have to add reserve load
4 capabilities to their tires to permit that. That would
5 mean they would either have to raise their air pressure or
6 in some instances put a larger tire on the vehicle. And
7 they oppose both of those options.

8 CHAIRPERSON PEACE: Do you know what would be the
9 reason for not requiring these on replacement tires?

10 MR. CANDIDO: Apparently, they claim the
11 replacement tires, the TPMS system rule as written, gets
12 involved in the method by which the activation is sensed.
13 There's one approach where there's a direct measurement of
14 the pressure. There's another method whereby the system
15 is linked to the ABS braking system that measures the
16 revolutions of the tire.

17 As you know, if a tire becomes underinflated, it
18 deflects more and it rotates more. So they measure that
19 through the ABS system on the vehicle. And that's the
20 system that the auto manufacturers want to promote,
21 because that's already being put in the vehicles. And so
22 with replacement tires, that rotation may not always be
23 the same as the new tire because the replacement tire may
24 vary a little in diameter or they may put a different size
25 on.

1 What we're pointing out is we believe that we
2 prefer a direct system of measurement where you're
3 actually measuring the pressure, not relying on ABS
4 systems. They want to rely on the ABS systems, because
5 they have that in the vehicles already for the most part.
6 And so, therefore, they said with that ABS system,
7 replacement tires may vary too much to be able to make
8 this monitoring system work. And that's why they excluded
9 them. We felt they should be included. And if that is
10 the case, then go to direct systems where you're actually
11 measuring the pressure. Difference of opinion between us
12 and the auto industry.

13 CHAIRPERSON PEACE: So if it's linked to your
14 ABS, then that means if the tire became underinflated, the
15 little light would go on in the car and let you know?

16 MR. CANDIDO: Yes. There would be a warning that
17 would essentially advise you that one or more of your
18 tires is underinflated.

19 CHAIRPERSON PEACE: Once you replace the tires,
20 you had replacement tires on, wouldn't the light still go
21 on if the car felt --

22 MR. CANDIDO: Yeah. I think the issue was it's
23 not that it wouldn't function. It wouldn't function to
24 the accuracy required to meet all the other requirements
25 of the tests for these systems. That's why they opted to

1 request that replacement tires not be included. They
2 showed data that said if you look at a whole cross section
3 of many multi-brands, there's enough variation in tire
4 diameter or rolling cycles that would make it difficult
5 for these systems to operate using an ABS.

6 Our position was we want replacement tires
7 measured, because they're as much if not more important
8 than new tires. And if that means you have to use a
9 direct measuring system where you actually have a sensor
10 inside the tire measuring the pressure, that's what we
11 prefer.

12 CHAIRPERSON PEACE: Makes more sense.

13 Before we go to our next speaker, I'd like to
14 take at least a five-minute break to give our court
15 reporter time to rest her fingers here. So we'll take a
16 quick five-minute break.

17 (Thereupon a recess was taken.)

18 CHAIRPERSON PEACE: Let's get started on this
19 very interesting discussion.

20 --o0o--

21 MR. CHAPMAN: Thank you. I will try to move very
22 rapidly. We do appreciate very much the opportunity to
23 talk with all of you, and we appreciate the time you're
24 spending with us.

25 What I'm going to do is put some of the

1 background we're going over from the first two presenters
2 into facts and charts and how that relates to the
3 environment.

4 --o0o--

5 MR. CHAPMAN: First of all, you've already heard
6 this from each of the first two speakers is what it's
7 about. It's the most important attribute in the tire.
8 And it has to be safe first before we consider anything
9 else it does.

10 --o0o--

11 MR. CHAPMAN: And this is kind of a wild graphic,
12 but it's intended to remind you all that every tire must
13 be designed to perform at a very high level in all the
14 conditions that are shown on the slide. And you're all
15 familiar with all those. You'll all experience all of
16 those, except maybe not the snow handling.

17 --o0o--

18 MR. CHAPMAN: First item I'd like to get into is
19 rolling resistance. Rolling resistance is effected by the
20 tire design and construction, by the rubber compound that
21 you use, by the tire's inflation, roadway surface, and
22 vehicle alignment.

23 --o0o--

24 MR. CHAPMAN: Red showed you a spider diagram.
25 This spider diagram shows what normally happens when you

1 optimize a tire design for rolling resistance.

2 We have two diagrams there. The red is
3 conventional tire technology. What it shows is when you
4 optimize for rolling resistance, you reduce tread wear
5 significantly. You normally get a little bit more in
6 terms of snow traction, but you also reduce wet traction
7 and dry traction. But you do get -- because your rolling
8 resistance is improved, you do get improved fuel economy,
9 but not at the same rate. You can see the fuel economy
10 increases -- rolling resistance increases dramatically,
11 but fuel economy only increases by a small amount. And
12 I'll show you where we get to where that comes from.

13 The green diagram or the green lines here show a
14 tire using silica technology, which is a little bit
15 different technology. It is being widely applied now in
16 the tire industry. And it shows using that technology
17 that when you optimize that on rolling resistance, you
18 eliminate some of the problems with traction, but you have
19 even more tire wear.

20 --o0o--

21 MR. CHAPMAN: This diagram is intended to help
22 you understand what happens with the elasticity of the
23 rubber and how much bounce there is in the rubber. The
24 middle diagram that is optimized for rolling resistance
25 has very little energy loss. The one on the right shows

1 when you try to increase traction, you get a lot more
2 bounce in the rubber.

3 --o0o--

4 MR. CHAPMAN: This chart was done by the National
5 Research Council to show rolling resistance's impact on
6 fuel consumption. And what I think it shows is that there
7 are lots of factors that effect the amount of fuel the
8 vehicle uses. The primary part is from the engine, the
9 engine exhaust, and the temperature from the exhaust
10 system and cooling system. And then you get into the
11 friction loses, then the accessories loses. And then you
12 get into the inertia, aerodynamic, and finally the rolling
13 resistance. So what you can see is in terms of fuel
14 consumption, rolling resistance is a small piece of the
15 total amount of the total fuel impacts for the vehicle.

16 --o0o--

17 MR. CHAPMAN: Pressure, you heard a lot already
18 about pressure and concerns about pressure and how
19 pressure impacts the performance of the tire. What you
20 can see here is that a tire properly inflated at 30
21 pounds, when that pressure is reduced to 23 pounds, you
22 lose about 20 percent of your fuel economy. And when you
23 reduce it down to 15 pounds, you're losing about 45
24 percent of your fuel economy.

25 --o0o--

1 MR. CHAPMAN: This is a scatter diagram, a tool
2 that engineers use. But it's intended to show that and
3 shows there are wide variations. But generally one PSI
4 amounts to a 1.1 percent reduction in rolling resistance.

5 --o0o--

6 MR. CHAPMAN: So summing all that up in terms of
7 rolling resistance, when you improve rolling resistance
8 performance, you reduce vehicle fuel usage about 1 to 2
9 percent for every 10 percent improvement in rolling
10 resistance. But if you don't maintain the tire, then you
11 lose all the advantages of that tire design and much
12 more.

13 Improved rolling resistance, however, does result
14 in decreased tire life. So you need more tires to
15 accomplish the same number of miles, because you're using
16 more raw materials and more energy to make those tires,
17 and increasing the amount of scrap. And you're all aware
18 of the Energy Commission study that will precisely define
19 exactly what those tradeoffs are.

20 --o0o--

21 MR. CHAPMAN: Moving to longer-life tires, there
22 are lots of things that -- and Red spent quite a bit of
23 time talking about all the factors that effect longer-life
24 tires: The design; the compound that's used; the
25 inflation; the roadway surface; all the vehicle factors;

1 size; aerodynamics; loads; and all the driver-related
2 characteristics that influence tire life.

3 --o0o--

4 MR. CHAPMAN: Here we have a spider diagram
5 that's intended to show you what we typically find in a
6 tire. When you optimize for tread wear, you lose a
7 substantial amount of rolling resistance. You lose some
8 fuel economy. And you also lose some snow traction as
9 well.

10 --o0o--

11 MR. CHAPMAN: Despite all of those things, the
12 tire industry continues to focus very hard on how do you
13 improve all the characteristics. This chart shows that
14 the average tire life from 1981 to 2001 -- and we don't
15 have the data on this chart from 2001 forward -- actually
16 increased by 15,000 miles, from 28,000 to an average life
17 of 43,000.

18 --o0o--

19 MR. CHAPMAN: The National Highway Traffic Safety
20 Administration did a study four years ago on tire
21 pressure. It looked at 11,500 vehicles. All these
22 vehicles were vehicles that came right off the road, so
23 the tires were hot. When the tires are hot, the pressure
24 in the tires is higher than the cool pressure when you
25 normally inflate the tire.

1 --o0o--

2 MR. CHAPMAN: Supposed to be more on this chart.

3 This chart is based on a tire that's
4 underinflated by 8 pounds. Now, what the study found was
5 a hot tire underinflated by 8 pounds, between 3 percent of
6 the passenger tires and 6 percent of the light truck tires
7 that were in service on that day when the tires were
8 monitored, all four tires were more than 8 pounds below
9 where they should be. And you've already seen what that
10 does in terms of tire wear.

11 A quarter of the passenger tires and a third of
12 the light truck tires were also underinflated. Let me say
13 that differently. On a quarter of the passenger cars and
14 a third of the truck tires, at least one tire was down by
15 8 pounds or more. So a significant safety hazard as well
16 as a pressure hazard.

17 --o0o--

18 MR. CHAPMAN: And this is another chart just
19 showing tire wear versus proper inflation. As you can
20 see, five pounds reduces tire wear about 15 percent. And
21 10 pounds reduces it about 40 percent.

22 So wrapping up that discussion, longer life
23 tires -- improved tire wear reduces the number of tires
24 obviously that are going to scrap. It improves customer
25 satisfaction because we all like to have our tires last as

1 long as they can. But it does reduce fuel economy,
2 because of the tradeoffs that we showed.

3 Reduced tire life, on the other hand, increases
4 material and energy required to produce and bring tires to
5 market. And, obviously, if you have less tread life, then
6 you have more scrap tires. And I want to emphasize a
7 point that poor tire maintenance does substantially reduce
8 the tread life.

9 Now the guy you've been looking to hear from,
10 Don.

11 --o0o--

12 MR. AMOS: Thank you, Madam Chairperson, Board.
13 My name is Don Amos. I'm from Continental Tire North
14 America. And I'm going to speak a little bit this morning
15 about recycled use in tires.

16 --o0o--

17 MR. AMOS: Very briefly, new tires contain about
18 20 components each with a unique rubber compound and
19 chemicals. And as it's been pointed out this morning,
20 tires are extremely complex. The chemistry in tires is
21 very complex. The way a tire is put together is very
22 complex. There's well over 100 years of very serious
23 engineering and very serious compound chemistry involved
24 in making the modern tire.

25 The tire is built. The components are put

1 together. And it's cured or vulcanized under heat and
2 pressure. Once this vulcanization takes place, these
3 components within the tire are chemically bonded together.
4 They're not just stuck together like glue. But they
5 literally join each other and become a homogeneous unit,
6 both chemically and physically.

7 The finished product is chemically very distant
8 from an uncured tire. We refer to green rubber. That's
9 not the color. That means before it's been vulcanized.
10 It's a lot like modeling clay. Afterwards, it becomes an
11 elastomer and has very little to do with the properties
12 before it was vulcanized. It is not just the sum of its
13 parts. It becomes an integral unit.

14 --oOo--

15 MR. AMOS: There's a lot of potential uses for
16 scrap tires, but new tire manufacturing is not one of
17 them, it would seem. First off, devulcanization is one of
18 the things that would seem very obvious you would do. You
19 would take the tire, take it apart, and devulcanize the
20 rubber that's in there. Unfortunately, breaking the
21 chemical bonds, vulcanized rubber is very energy-intense
22 situation. As we pointed out, the tire is made up of a
23 very complex assortment of specialized rubbers, each of
24 them having different devulcanizing properties. The
25 concept of devulcanizing a scrap tire becomes a very, very

1 complex issue and one that I can say has surely not been
2 solved up to this point. It is not technically or
3 economically viable at this point in time. At least, it's
4 not been presented to us so.

5 Pyrolysis seems like another good way. We use
6 carbon black in tires. And carbon black ought to be
7 carbon black, except it isn't. There are many, many
8 different grades of carbon black, and each them has very
9 specific properties that we use in the compounding of the
10 rubber. It's not just black. It's very specifically
11 black. The char that you get out of burning a tire
12 without oxygen and making carbon black makes a material
13 that looks like carbon black. Unfortunately, it's not
14 very useful. It's not technically or economically viable
15 at this time. It produces an inconsistent product, and we
16 don't have an application for it.

17 One thing that we can use right now is ground
18 rubber. That's the focus of most of our recycled content
19 experiments to date.

20 --o0o--

21 MR. AMOS: Ground rubber is what you get whenever
22 you take a tire and just literally grind it to pieces.
23 Thirty mesh -- in other words, 30 holes per inch, is sort
24 of the benchmark of where it becomes a useful product.
25 And if you think about it, that's pretty finely ground

1 stuff. Eighty mesh is the place that it becomes pretty
2 much useful in the carcass. Thirty mesh being for tread.

3 For some of the components, we could use 140
4 mesh, and we could foresee even more use if we could get
5 to 200 mesh. As you go up in mesh size, you then have
6 much, much more energy input into making the tire or the
7 pieces that small, and it becomes increasingly difficult.
8 And it becomes increasing expensive to make it. As I
9 said, pyrolytic char has very little application that
10 we've been able to find so far.

11 --o0o--

12 MR. AMOS: If we go to a new tire, we are very
13 effected by the particle size that we use. We're effected
14 by the content, what kind of rubber actually is in there,
15 and then the service requirements of the tire that we
16 intend to put it back into. We have to think all of these
17 things through.

18 --o0o--

19 MR. AMOS: We can use some ground rubber or crumb
20 rubber, which is the word often used, as a low cost
21 filler. Unfortunately, it's not as low cost as we would
22 like for it to be, because there's that energy of taking
23 it apart.

24 Curing materials and anti-degradents also impact
25 our mix and our curing, because we don't exactly know

1 what's in there. One of the issues for ground tires is
2 the feedstock. If you've ever looked at a pile of scrap
3 tires, you'll see that there's all kinds of tires in
4 there. So what goes into the grinding plant today would
5 be different than what went into the grinding plant
6 yesterday and what will go into the grinding plant
7 tomorrow. As a consequence, we get inconsistent crumb
8 rubber. We don't actually know what it is. And so not
9 only do we not know what the actual rubber compound is, we
10 don't know what other rubber chemicals are with it. It
11 poses a real problem to put it in a new tire.

12 Many of the chemicals -- if you recall the slide
13 that was shown earlier that showed a photograph or sort of
14 a family picture of stuff that goes into a tire, there's a
15 lot of the stuff -- there's not much that goes in. But I
16 guarantee you every little bit that goes in is important
17 to how that tire performs. When we start getting little
18 bits of unknown stuff, then our quality goes out the
19 window.

20 We lose our performance as we put in the crumb
21 rubber. And typical 40 mesh crumb rubber is okay to some
22 extent in treads, but we always find we're losing. As we
23 increase the amount of recycled, we decrease the life and
24 the properties of the tire. And there's two things that
25 are very clear that the Board is interested in. One of

1 them is fuel economy, obviously. And the other is to
2 reduce the number of scrap tires. It doesn't do any good
3 to increase the number of scrap tires and get a little bit
4 better fuel economy. It's a tradeoff that we don't want
5 to make. It certainly doesn't do any good when we lose
6 the safety properties of the tire at the same time. We
7 can get into the circular thing where we're just chasing
8 our tail trying to do something because it looks nice, but
9 it doesn't produce the result we want.

10 We have constantly more demanding tire
11 performance characteristics these days. People are going
12 faster on the interstates. They're driving more heavily
13 loaded vehicles. And to do that, we would be thinking
14 less recycled content, not more.

15 --o0o--

16 MR. AMOS: Here is a chart that was made up, and
17 these are properties of rubber. And I will spare you the
18 details on that. But just say that 100 is for a
19 controlled stop with no crumb rubber in it and then
20 amounts of crumb rubber beyond that. If you'll notice the
21 take away from this if nothing ever got back to 100. So
22 as you add the crumb rubber, you lose the properties of
23 the rubber that are desirable.

24 Sorry. That is just where we are right now.
25 There is no technology I know of that has a crumb rubber

1 material that is actually better. It's frequent we will
2 have rubber compounds where we will lose some particular
3 property but gain something else. And we may actually use
4 it because what it gains outshines what we lose. In this
5 case, we lose everything. There's nothing in there that
6 helps us.

7 CHAIRPERSON PEACE: Excuse me. Can I ask a
8 question in terms of the recycled?

9 MR. AMOS: Shall I go back to that one?

10 CHAIRPERSON PEACE: Does that include when you're
11 trying to use crumb rubber, recycled rubber in your tires?
12 Is that stuff you would just buy from a rubber plant, or
13 does that include like maybe your own scrap? Does it work
14 the same way whether you're trying to use your own scrap
15 from your factory versus --

16 MR. AMOS: No. As long as the scrap hasn't been
17 vulcanized, we reuse that. We have very, very, very
18 little unvulcanized rubber that gets thrown away.
19 Something might get enough contaminated by some accident
20 we would have to throw it away. But, basically, if it
21 hasn't been vulcanized, we find ways to rework it. Once
22 it gets cured into the tire, once the tire has gone
23 through the press and the heat and the pressure and the
24 rubber is literally vulcanized, there isn't much we can
25 do.

1 Let me give you an analogy. It's kind of like a
2 zipper that breaks when you get it all the way zipped up.
3 And you don't have any way to get it back down. The only
4 thing you can do is break it.

5 As I said, we put 100 years of engineering and
6 compounding into making tires not break. We do not want
7 the tire in the hands of the consumer to break. Then to
8 take the tire back apart means you have to put a lot of
9 energy into taking it apart. We don't have technology
10 right now that says here's a nice way to unzip the tire
11 once you put it all together.

12 Answer your question?

13 --oOo--

14 MR. AMOS: The challenges that we're facing is
15 the tire structure is composed of many various rubber
16 compounds, fabric reinforcements, and steel
17 reinforcements. It's a very difficult thing to take
18 apart. We made it that way. It should be difficult to
19 take apart. But that makes a problem in terms of what to
20 do with it afterwards. The structure is designed and
21 manufactured to be resistant to break down. The materials
22 must be mechanically separated to be usable. It doesn't
23 work to have bits and pieces of steel and fabric in your
24 tread, because we have to take them apart and its
25 constituents.

1 A ground rubber plant, to actually do this,
2 breaking the tire down, taking it apart, and making it
3 into useful products is a very capital-intense and a very
4 low margin product. It just doesn't seem to fit yet into
5 a good business enterprise. And as I said earlier,
6 feedstock is inconsistent. They don't get the same tires
7 every day. Therefore, what they put out is not the same
8 every day.

9 --o0o--

10 MR. AMOS: We did an experiment in conjunction
11 with the state of North Carolina. In was a
12 multi-million-dollar grant run over several years. We
13 used a particular size tire, a P215/60R16 Conti Touring
14 Contact. This tire has 15 major components in it. And it
15 has 14 separate rubber components in it. The
16 experimentation was performed in 2003. We took what we
17 called a regular production tire that had 4.6. of 80 mesh
18 whole tire ground rubber, with 10 percent of it appearing
19 in the tread cap.

20 At that point in time, we had a good supply, as
21 far as that word goes, of crumb rubber coming from a plant
22 that was set up in South Carolina. We got to an
23 experimental production tire that had 13.6 percent of 80
24 percent and 140 mesh whole tire ground rubber. We had
25 gotten to 20 percent in the tread cap. We had some pyro

1 black ranging from 2.4 to 25 percent in various
2 components.

3 --o0o--

4 MR. AMOS: Sounds good. Unfortunately, the red
5 bar on the three-prong spider chart there gives you the
6 results of that experimentation. One-hundred is 4.6, the
7 performance of the tire, and the red shows that you in
8 every category rolling resistance grip, which is traction
9 and wear, we had a very significant loss of the properties
10 of the tire. So this comes back to using the crumb rubber
11 makes some stuff disappear out of the scrap pile. But it
12 makes more tires appear to go into the scrap pile. And
13 right now, it's kind of hocus-pocus.

14 --o0o--

15 MR. AMOS: The study showed that negative tire
16 performance implications include lower tread life, lower
17 wet traction, lower wet stopping distance, and lower snow
18 traction and higher rolling resistance. So not only that,
19 it uses more fuel to wear shorter.

20 Continental has discontinued this research
21 because this project was canceled. We weren't getting the
22 results that were needed. The levels we could use were
23 just not high enough to indicate that we should go on with
24 it. And there were no breakthroughs in the technology at
25 that time. We simply do not have an acceptable source of

1 materials, and we do not have yet a good material from
2 scrap tires.

3 --o0o--

4 MR. AMOS: Increasing recycled content reduces
5 tire durability, reduces tire performance and life, and it
6 decreases the approximate recycled content -- life
7 decreases on approximate percentage as the recycled
8 content increases on a percentage. So 20 percent usage of
9 recycled content would mean a tire that was reduced
10 approximately 20 percent in each of its performance
11 characteristics.

12 --o0o--

13 MR. AMOS: And that ends mine. I will be very
14 happy to entertain any questions. Questions from anyone?

15 CHAIRPERSON PEACE: From what you're saying,
16 instead of the Board focusing on trying to get you to use
17 more recycled content in your tires, that we should focus
18 maybe more on smart tire technology and tire care.

19 MR. AMOS: Yes. If I understood you correctly,
20 you will get much, much more from focusing on tire care.
21 Inflation pressure is low tech. Everybody has a little
22 pressure stick gauge, or you can buy one for two bucks.
23 It take very few minutes out of everybody's day to check
24 their tires on a periodic basis. And there is big bucks,
25 lots to be done by simply doing inflation pressure. If

1 you think about it like seat belts, 30 years ago, you had
2 to fight with people to get them to wear a seat belt. The
3 seat belt might have been in their car, but they wouldn't
4 use it. You have the same situation now. People have to
5 just get used to doing inflation. That will get you
6 something. You can have it right now.

7 BOARD MEMBER MARIN: Thank you very much for that
8 wonderful presentation. I really appreciate that. It
9 gives us -- I know it gives me a pretty good understanding
10 of why, as much as we want to ask you to use more recycled
11 content, you can't get a new tire from an old tire. I
12 understand that.

13 MR. AMOS: Please understand that there is no
14 bias in the tire industry against using recycled. But we
15 do need a commercially viable material, and we don't have
16 it at this time.

17 BOARD MEMBER MARIN: So that leads me to the next
18 question. Because our challenge in trying to reduce the
19 numbers of tires that goes into the pile, the Rubber
20 Manufacturers Association doesn't come up with an answer.
21 We're asking every other industry, every other industry,
22 construction, you name it, we're asking everybody to use
23 recycled content.

24 I can appreciate why this is not possible in the
25 making of the tire. But that would be an answer that

1 everybody else would give us for not using recycled
2 content on any other product. I understand the
3 engineering. I'm not an engineer. I take your word for
4 it. I understand that it's very difficult.

5 So then my question to you is, what can the
6 Rubber Manufacturers Association do to help us in coming
7 up with the development of a market plan to get other
8 people to use old tires for new products and new services?
9 What are you guys doing -- maybe you're not the person to
10 answer this question.

11 MR. AMOS: No. I think this would be an
12 excellent time for me to step down and let Ms. Norberg
13 step up to the stand.

14 Does that take care of any more technical
15 questions?

16 CHAIRPERSON PEACE: I just had one more technical
17 question. When it comes to smart tire technology, they
18 say I guess the technology would be linked to what they're
19 calling the ABS system in your car to tell you when your
20 tires are underinflated. Is there anything that you can
21 put in a tire -- have you ever looked at or developed
22 anything to put in like a tire itself, a little thing that
23 would pop out that would tell somebody that their tire is
24 underinflated that wouldn't rely on a system inside the
25 car?

1 MR. AMOS: Well, yes and no. I've tested at
2 least 100 different versions over my career of what you're
3 talking about, usually in the form of a valve cap or
4 combined valve and valve cap where it pops up or pops down
5 or does something. And I'm yet to find one that is
6 reliable over a very long term. You have to understand
7 that the environment in which a tire works is a very, very
8 harsh environment whenever you compare the inside of the
9 tire to the outside of the tire.

10 Now, the best thing that we found so far that
11 suits the tire is, of course, the internally-mounted
12 pressure monitoring systems. These are very accurate.
13 They work in essentially real time. And they do what you
14 said. But they are expensive compared to the more
15 simplistic things. And I wish I could tell you that there
16 was some kind of simple mechanical device that would do
17 what you said. But I'm yet to find it.

18 BOARD MEMBER MARIN: One more question. Is there
19 any material that -- is there any material that would
20 enable itself to be used or reused -- maybe it's not
21 rubber. I don't know. Do you recycle any other part of
22 the tire? Is there anything that can be recycled? Maybe
23 not rubber, maybe something else that is being recycled.

24 CHAIRPERSON PEACE: If you can't use the -- maybe
25 you could answer that.

1 MR. AMOS: The steel lends itself very nicely to
2 be recycled under normal steel recycling processes. The
3 plastics part of the tire, such as the polyester fiber --

4 BOARD MEMBER MARIN: And you use that in the
5 manufacturing of the tire?

6 MR. AMOS: We don't right now, because no one is
7 making that as a viable material. But that has some
8 possibilities. It is the rubber part of the tire, the
9 vulcanized rubber part of the tire that is difficult to do
10 anything with in terms of putting it back into the tire.

11 Now, I do think that there are places where a
12 tire, parts of a tire, a chunked tire or a ground tire can
13 be a value-added material. And one of the most useful
14 places, in my opinion, and I am an engineer, is in its use
15 as lightweight fill for spanning swampy ground in highways
16 and other types of construction and as a very permeable
17 area for backfill behind walls and other structures.
18 Those are good.

19 BOARD MEMBER MARIN: One last question. The
20 prime materials that you use to make rubber throughout the
21 world, do we have an endless supply of that?

22 MR. AMOS: We have -- I think you would probably
23 say we have an endless supply of natural rubber. Because
24 if we have an endless supply of corn or wheat, then we
25 have an endless supply of natural rubber. It grows on a

1 tree. It can also be grown in the southwest as a guayule
2 plant. It's latex, occurs naturally. And it's an
3 extremely useful product. But we also make a lot of
4 synthetic rubbers which comes from petroleum. So that's
5 where the bulk of your tire comes from. So when we say
6 rubber, think of two areas. Think of rubber plantations
7 in Asia and think of petroleum wherever we're getting our
8 petroleum from at that time.

9 BOARD MEMBER MARIN: Petroleum will be a more
10 limited amount.

11 MR. AMOS: It would be a more limited amount
12 depending on how we chose to use it.

13 BOARD MEMBER MARIN: One of the mandates we have
14 is to protect the environment. And our friends on the
15 environmental side always remind us that, you know, we
16 have to reduce the amount of raw material that goes into a
17 product, reuse whatever amount we can, and certainly
18 recycle it. And we try to do that.

19 So I'm thinking here, not being an engineer, are
20 there areas where if it is not one particular prime
21 material that you need, that you are using other recycled
22 content, you're using other recycled products to create
23 your new tires? And maybe that takes away some of the --
24 how can I say it -- the undesirable things that are toward
25 your industry. Because, you know, I know if we can't do

1 it, we can't do it. Well, yeah, you cannot do it on
2 rubber. But maybe there are other things that you can use
3 recycled content.

4 MR. AMOS: I would imagine the steel we use has a
5 very considerable amount of recycle in it. And I would
6 imagine the plastics we use have a substantial amount of
7 recycled. I don't know that for a fact, but I would
8 imagine they do.

9 BOARD MEMBER MARIN: Maybe what we need is to
10 spread the word about that, because I don't -- at least I
11 don't hear that. So that's why the questioning.

12 MR. AMOS: Because trying to recycle rubber into
13 tires is such a problem. The focus is on the problem, not
14 on what is being done.

15 BOARD MEMBER MARIN: Okay. Thank you.

16 CHAIRPERSON PEACE: Did you say in the steel and
17 the fiber that's pulled out in the crumbing process, that
18 couldn't be recycled and put back into a tire?

19 MR. AMOS: I believe it could be recycled into
20 tires. Most plastics can be recycled into either the
21 original product or something very similar.

22 CHAIRPERSON PEACE: Didn't I read a report that
23 was done a couple years ago that said there were markets
24 for the steel that was pulled out of tires, but there was
25 no market for the fiber that was pulled out?

1 DEPUTY DIRECTOR LEE: Yes, Madam Chair. I think
2 it was a Board-funded study that looked at that. I think
3 we brought it before the Board last year. I think it
4 basically showed very limited markets for the fiber. Some
5 perhaps greater opportunity for the steel, but still a lot
6 of problems to overcome for both commodities.

7 CHAIRPERSON PEACE: I guess we need to see what
8 they need to do to make the fiber more -- you know, what
9 they need to do to make it so you can reuse it, so you can
10 get that -- at least get the fiber content from the
11 recycled tires, instead of putting the rubber back -- you
12 know, old tires back into new tires in terms of the rubber
13 content. Maybe put the fiber from tires back into the
14 tires. Have you looked into that at all?

15 MR. AMOS: I'll have a look and see what I can
16 find out about current -- you know, what's being done.
17 I've honestly never checked to see what's done with the
18 fiber, because the focus has been on trying to figure out
19 how to deal with the rubber. But I'll have a look at both
20 the fiber and the steel. I would think these could be
21 used. I don't know for sure that tires is the right
22 place. But I certainly think they get reused. I'll have
23 a look at it.

24 CHAIRPERSON PEACE: As an engineer, can you
25 answer one more question? What do you know about the

1 tweel. The tweel that you --

2 MR. AMOS: I must be misunderstanding the word.

3 DEPUTY DIRECTOR LEE: It's a combination of
4 tire/wheel.

5 MR. AMOS: What about the tire wheel?

6 CHAIRPERSON PEACE: I've just been reading some
7 articles on it, and I was just wondering if somebody could
8 explain maybe more about it, when it's planned to hit the
9 market.

10 MR. AMOS: Oh, the combined tire/wheel.

11 BOARD MEMBER MARIN: Yeah. The tweel.

12 MR. AMOS: Probably, that's not going to happen
13 any way soon. I tell you very frankly I've been through a
14 lot of research projects that were going to cast tires
15 from one piece and that were going to make an integrated
16 tire and wheel. And the tire is such a unique structure
17 it just does not lend itself to much of anything else.
18 And to make it a one-piece wheel to go with it -- the
19 wheel is also a pretty unique structure. And metal works
20 good for it. Sometimes plastics, but mostly metal, steel,
21 aluminum. Or as I said, some engineering plastics work
22 okay for it. But the tire is such a different structure
23 from almost anything else we use. I don't think they're
24 going to be one piece. Very unlikely.

25 CHAIRPERSON PEACE: Okay. Thank you.

1 DEPUTY DIRECTOR LEE: Madam Chair, may I ask a
2 couple questions of our Continental Tire Representative?

3 On your chart where you indicated the various
4 tire properties and how those are adversely affected by
5 various percentages of crumb rubber, it showed decreases
6 from your standard of 100. But what does the tire
7 industry consider a normal variations from that 100 that
8 would still meet the performance objectives?

9 MR. AMOS: There is no pat answer for that,
10 because there are many different rubber compounds that are
11 used. And we will have some manufacturing variation just
12 from making one to the other. But that will range in a
13 very, very small percent. Let's say maybe 1 or 2 percent.
14 And then we might adjust some of these down to get another
15 one up a little bit by a few percent to get a very
16 specific compound that we wanted. But the adjustments are
17 small.

18 DEPUTY DIRECTOR LEE: We're talking probably less
19 than 5 percent?

20 MR. AMOS: Yes.

21 DEPUTY DIRECTOR LEE: Also, you mentioned that
22 crumb rubber could be used for filler in some of the tire
23 applications. What components is the crumb rubber
24 replacing, and is Continental currently using any recycled
25 content? I'm talking about vulcanized product crumb

1 rubber in any of its tire lines.

2 MR. AMOS: The answer is the crumb rubber serves
3 only as a filler, and it just replaces some of the base
4 material. It means that you use less base material and
5 you bind it in concrete fashion. It never becomes an
6 actual integral part of the base material. It is only a
7 filler. It is somewhat bonded into the structure but
8 never in the chemical sense of vulcanization.

9 To answer your question, yes, we are using some
10 crumb rubber in our products right now. And our current
11 level of use is about 1 percent. We would use more if we
12 had a better, more reliable, and more viable source. But,
13 unfortunately, at this time we do not.

14 DEPUTY DIRECTOR LEE: Thank you.

15 MR. AMOS: Any other questions?

16 MS. NORBERG: Hi. I'm back. I'd like to just
17 wrap up our discussion and tell you about a few other
18 things that are going on. I know we're running a little
19 short on time, so I'll try to be expeditious.

20 First of all, in terms of answering the question
21 about what the tire manufacturers can do in this process,
22 one thing I think we have spoken to the Board about
23 historically and continue to solicit involvement is our
24 tire safety campaign where we focus on tire care and
25 maintenance and advocate that consumers take care of their

1 tires, maintaining pressure, inflation, tread, depth, and
2 also alignment.

3 And we would invite the Board to become more
4 actively involved in that. I understand there was some
5 discussion of that at the Five-Year Plan meeting last
6 week. And we love to have partners in that activity. RMA
7 currently has AAA as a partner, several national tire
8 dealers. We continue to solicit other partners.
9 Actually, the National Highway Traffic Safety
10 Administration has come on board and is doing some events
11 with us at National Tire Safety Week this year. And we're
12 continuing to promote that activity.

13 So our purpose in Tire Safety Week originally was
14 to promote tire maintenance for the purpose of tire
15 safety. However, as you've heard this morning, there are
16 so many relationships between tire safety, tire
17 maintenance, and also environmental performance. So we
18 would welcome the Board's participation in really
19 partnering with us in that continuing activity. And Tire
20 Safety Week is the last week in April of this year.

21 BOARD MEMBER MARIN: Jim, make sure we do
22 something.

23 MS. NORBERG: We'd be glad to coordinate events.
24 Actually, if you all are interested in having an event --
25 and, Ms. Marin, I plan to talk with you this afternoon

1 about possibly doing some public service announcements

2 with us, so we can talk more this afternoon.

3 BOARD MEMBER MARIN: We certainly can do that.

4 You have the commitment to do that.

5 MS. NORBERG: And our communication staff is

6 great at putting together events and can really assist in

7 that.

8 --o0o--

9 MS. NORBERG: I wanted to really quickly update

10 you on the California Energy Commission activities. As

11 you know, the Waste Board has been working with the Energy

12 Commission and gave \$400,000 -- I'm not sure of the exact

13 term -- funding the testing program. And I and our member

14 company folks have been working very closely with the

15 Energy Commission staff to put together their program and

16 really get at the heart of some of these discussions and

17 how tire performances are all related.

18 --o0o--

19 MS. NORBERG: The other thing I wanted to tell

20 you about is the National Academy of Sciences is actually

21 going to be looking at this whole issue, too, of tire

22 rolling resistance, fuel economy, and how all the

23 performances are effected by one another. An expert panel

24 has recently been appointed, and you can see the bullets

25 there of what they're trying to look at: The rolling

1 resistance, fuel consumption, tire wear, and also safety
2 implications. They're trying to consider the average
3 American drive cycle in its analysis and looking at the
4 cost to consumers in terms of replacement tires, so if
5 those tires don't last as long, for example, and balancing
6 that against any potential fuel savings. The panel is
7 expected to hold four meetings in 2005 and release its
8 report by the end of this year. So it's a pretty
9 aggressive time frame.

10 --o0o--

11 MS. NORBERG: Their first meeting -- well,
12 actually, this is a list of the panel members which you
13 can look at at your leisure. But it's a pretty diverse
14 panel of people with technical expertise, industry
15 expertise, and also some expertise on the environmental
16 side as well. And on the National Academy, they really
17 strive for balance so they can have all the technical
18 expertise balanced with policy diversity.

19 --o0o--

20 MS. NORBERG: The first panel meeting is April
21 4th and 5th in D.C., and it's really going to be their
22 kickoff where they hear from all the interested parties
23 and the National Highway Traffic Administration. Our
24 organization, EPA, is expected to at least be present.
25 And NRDC, I believe, will make a presentation. And

1 Congressional staff will be involved.

2 --o0o--

3 MS. NORBERG: The one thing I wanted to tell you
4 about, too, is the second meeting of the National Academy
5 Panel is planned to be held at U.C. Davis. And they're
6 looking at, I believe, somewhere in the neighborhood of
7 May 19th through 24th. It will be a two-day meeting
8 somewhere in that block possibly over a weekend. And
9 they'll be working with the U.C. Davis folks to coordinate
10 that. I understand it will actually be on the campus
11 using the U.C. Davis facilities.

12 We would really ask to get some Waste Board
13 participation in that meeting because of the interest that
14 this organization has in terms of tire life and not
15 increasing scrap tires. I think it will be really
16 important to hear those concerns and voices in that
17 process.

18 And I'd be glad to get more information on that
19 to you. I don't have any specific dates, but I've yet --
20 other than that time frame. And I've been working closely
21 with NAS staff in setting that up. He asked me
22 specifically to extend an invitation to the Board for your
23 participation.

24 Just to kind of wrap up what we've talked about
25 this morning. As you heard, our member companies have a

1 lot to balance: Tire safety, customer satisfaction, and
2 environmental concerns, and a lot of very complex
3 engineering and design considerations. And our product
4 really undergoes a lot of tough, tough performance
5 requirements.

6 We've dramatically increased performance, rolling
7 resistance, tire wear, et cetera, through research and
8 development in that, and that research and development
9 continues. Every day, every company is striving to make a
10 more efficient product that will perform at higher and
11 higher safety levels. We're dedicated to ensure the
12 safety and performance of our products, including
13 environmental aspects.

14 But just as a closing note, I want to emphasize
15 that tire safety really is the beginning consideration and
16 the middle consideration and the end. I know you're
17 probably a little bit tired of hearing that. But I have
18 to say that's the most important thing. Because when we
19 look at tires, that, to us -- that's why they're designed,
20 is to keep vehicles and people safe on the road.

21 So with that, I end my remarks. And I'd be glad
22 to entertain any questions or have any follow-up that
23 might be helpful.

24 CHAIRPERSON PEACE: Thank you, Tracey.

25 BOARD MEMBER MARIN: I do. I, for one, will be

1 the one that will say absolutely, your priority is the
2 right one. You're not going to get any argument. Safety
3 has to be the number one priority. And my hope would be
4 that the RMA, aside from joining the efforts of educating
5 the public so that the tires would have a longer life and
6 so forth, I really would like to request that an effort is
7 made to see, if not rubber, is there anything else that
8 can be used that is a recycled part? Maybe you're already
9 doing --

10 MS. NORBERG: I'd be glad to follow up with that.

11 BOARD MEMBER MARIN: That, to me, would be great.
12 Because our job is also the health and safety. That's our
13 number one priority. The reason why we exist is precisely
14 to have a better, cleaner, healthier environment for
15 people so they can have a healthy life.

16 So having said that, you know, I would request
17 that more research or maybe just finding the information.
18 Maybe you already recycle. Maybe there is 20 percent of
19 what goes into your new tires is actually something that
20 has been already used and reused or recycled.

21 MS. NORBERG: I don't believe we have any
22 specific statistics on steel recycling. But those are
23 readily available by the steel industry organizations.
24 But steel, in general, is a very hot commodity right now.
25 And so I believe the steel and tires that's recovered as

1 part of the ground rubber process is fed into that
2 recycled steel market. One thing I will say, though --

3 BOARD MEMBER MARIN: But that you use in the
4 production of the new tire.

5 MS. NORBERG: We'll have to follow up with you on
6 that. Because I will say the grades of steel that are
7 used in tires are pretty high grades. And the level of
8 acceptable contaminants is pretty limited because of the
9 performance requirements those steel components have. But
10 I'd be glad to follow up and see if we can get any more
11 detailed information.

12 BOARD MEMBER MARIN: I hope you get what it is
13 I'm trying to say and take it in the spirit in which it's
14 being given. Okay.

15 CHAIRPERSON PEACE: If you could look in the
16 steel and the fibers.

17 MS. NORBERG: We'll look in the fibers, too. I
18 have to say there is a vulcanization component to the
19 fiber as well, so there are some technical issues
20 associated with that that might limit recycling in tires.
21 But we can definitely follow up and see what more
22 information we can provide.

23 CHAIRPERSON PEACE: Thank you.

24 We do have one speaker, Scott Smithline from
25 Californians Against Waste.

1 MR. SMITHLINE: Madam Chair, full Board members,
2 I guess, here today. Scott Smithline of Californians
3 Against Waste. I just have a very brief comment and one
4 question.

5 My first question is we've heard a lot about air
6 pressure today, and we've heard a lot about programs to
7 maintain air pressure. We've heard about the new TREAD
8 Act with new technologies that tell us when we don't have
9 the right air pressure. I'm just curious as to why can't
10 we keep our air pressure in the tires? I know there's
11 been some talk about using different gasses in the tires.
12 But I would like to hear, maybe if one of the engineers
13 would like to respond, have we made progress in tires in
14 the last 30 years of keeping air in the tire? Just
15 keeping it in there. That's just a question that I had.

16 With respect to tire industry and RMA -- and I'd
17 like to make a brief comment. I think I'd be remiss if I
18 didn't at least, you know, say where we agree we're
19 working together. And I think where we agree is evident.
20 We agree on markets and working on value-added markets.
21 And we're going to continue to work with these different
22 tire manufacturers directly, if need be, and definitely
23 through the RMA on that issue.

24 But I do feel that, you know, time and time
25 again, whether it's tire manufacturers or plastic bag

1 manufacturers, when industry representatives come up and
2 tell you they're doing everything they can do, you know,
3 we have to do better. We have to do better. We have
4 serious tire problems in the state of California. So
5 whatever we're doing isn't good enough. And I would like
6 to see more forward thinking from this industry. I would
7 like to see a tire stewardship plan from the industry and
8 how they plan on following their product through the life
9 cycle of the product. That hasn't been forthcoming. So
10 we're still waiting for that energy to come from this
11 industry. So I just wanted to make that comment.

12 CHAIRPERSON PEACE: That's a good point. Can any
13 of the engineers out there answer that question, how we
14 can better keep the air in the tires to begin with?

15 BOARD MEMBER MARIN: What kind of ventilation
16 system do they have that they just let the air out?

17 MR. CANDIDO: Can you repeat that?

18 BOARD MEMBER MARIN: The ventilation, it just
19 leaves.

20 MR. CANDIDO: The reality is a tire is a
21 pressurized chamber. When that air pressure inside the
22 tire actually defuses, the oxygen, nitrogen molecules work
23 their way through the tire over time.

24 The tire manufacturers pretty much have the same
25 levels of diffusion capabilities. And even automobile

1 manufacturers have test requirements as to what percent
2 air loss is permissible. And the way that we reduce that
3 permeation is through this interliner material that is
4 part of the tire structure.

5 Generally, most tires today are less than 2 1/2
6 percent per month, which is an automotive industry
7 standard requirement, particularly General Motors. And
8 others basically run around the same level. So that's
9 essentially where the state-of-the-art is today in terms
10 of air pressure over time.

11 Now, 2 1/2 percent a month, what's one PSI --
12 two. So we generally recommend that people check their
13 tires at least once a month, which is not an inordinate
14 amount of checking. And we're really only talking a
15 couple of pounds pressure at that point. So if someone is
16 doing reasonable routine checking of their air pressure,
17 they're not going to see significant drops in air pressure
18 through this process of permeation where the air just
19 works its way through the tire.

20 Notwithstanding, we have other issues, too,
21 punctures or nails that cause slow leaks, but that's
22 another issue. Certainly, with the TPMS systems, in
23 theory, that's a great way to control air pressure.
24 However, we have issues as to how that rule was written.

25 I don't know if I've answered all those

1 questions.

2 CHAIRPERSON PEACE: Is it possible to make a tire
3 that's leak proof?

4 MR. CANDIDO: Not entirely leak proof. We
5 probably could reduce it further. The question is there's
6 always a tradeoff and excess material usage to do that,
7 which adds weight and heat to the tire.

8 CHAIRPERSON PEACE: What about the thing I heard
9 about the nitrogen, just use nitrogen in the tires to fill
10 them; is that --

11 MR. CANDIDO: Right. Well, there's a lot of talk
12 about nitrogen inflation, using pure nitrogen to inflate.
13 Nitrogen molecules are such they don't work through the
14 tire structure as readily. They go through much slower.
15 So you get a much lower rate of air loss with nitrogen.
16 Unfortunately, we don't have access on a global basis
17 across the country to nitrogen inflation. So we really
18 cannot design our tires to accommodate nitrogen. We have
19 to take the worst-case scenario, which is air, which is
20 the cheapest.

21 CHAIRPERSON PEACE: Can you encourage tire
22 dealers to carry nitrogen?

23 MR. CANDIDO: Is there someone here from the tire
24 dealers?

25 CHAIRPERSON PEACE: I know when I went to Costco

1 they had big nitrogen tanks right there for the people
2 getting tires --

3 MR. CANDIDO: Really, it's probably not the
4 dealers that are at issue. That would be one thing to do.
5 But it's the average consumer. They're caught with a low
6 pressure situation, and they go to their nearest service
7 station or they have one of these inflating devices.
8 Those are operating with air. That's the reality. And
9 until we get to the point where there's nothing but
10 nitrogen to be used, then we really have to design our
11 tires for air inflation.

12 But if it was true that there was total access to
13 nitrogen, we would certainly endorse it. It's a superior
14 way. But there's just not the access to nitrogen across
15 the board at service stations and so forth.

16 CHAIRPERSON PEACE: Okay. Thank you. Any
17 questions?

18 Thank you all for being here. It was very
19 educational and interesting. I sure appreciate the
20 presentation. Thank you.

21 This meeting is adjourned.

22 (Thereupon the California Integrated Waste
23 Management Board, Special Waste Committee
24 adjourned at 12:23 p.m.)

25

1 CERTIFICATE OF REPORTER

2 I, TIFFANY C. KRAFT, a Certified Shorthand
3 Reporter of the State of California, and Registered
4 Professional Reporter, do hereby certify:

5 That I am a disinterested person herein; that the
6 foregoing hearing was reported in shorthand by me,
7 Tiffany C. Kraft, a Certified Shorthand Reporter of the
8 State of California, and thereafter transcribed into
9 typewriting.

10 I further certify that I am not of counsel or
11 attorney for any of the parties to said hearing nor in any
12 way interested in the outcome of said hearing.

13 IN WITNESS WHEREOF, I have hereunto set my hand
14 this 17th day March 2005.

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